Amendments to the Claims

1. (Original) A I type collagen gene transcription suppressing composition, which comprises a cinnamoyl compound represented by the formula (I):

[wherein

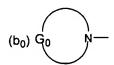
I. A represents a benzene ring or a pyridine ring, in $(Y_{\alpha})_q$, Y_{α} is a substituent on a carbon atom, and represents a substituent of the following X_0 group or Y_0 group, q represents 0, 1, 2, 3, 4 or 5, when q is 2 or more, Y_{α} 's are the same or different and, when q is 2 or more, the adjacent two same or different Y_{α} 's constitute a group of a Z_0 group, and may be fused with an A ring;

(1) a X_0 group:

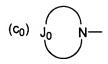
a M_a -group [M_a represents a R_b -group (R_b represents a C1-C10 alkyl group optionally substituted with a halogen atom), a halogen atom, a nitro group, a cyano group, a hydroxy group, a R_c - B_a - R_d -group (R_c represents a C1-C10 alkyl group optionally substituted with a halogen atom, B_a represents an oxy group, a thio group, a sulfinyl group or a sulfonyl group, R_d represents a single bond or a C1-C10 alkylene group), a HOR $_d$ -group (R_d is as defined above), a R_e -CO- R_d -group (R_e represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom, and R_d is as defined above), a R_e -CO-O- R_d -group (R_e and R_d are as defined above), a R_e O-CO- R_d -group (R_e and R_d are as defined above), a R_e O-CO-CH-CH-group, a R_e R $_e$ 'N- R_d -group (R_e and R_e

are the same or different, R_e is as defined above, R_e' has the same meaning as that of R_e , and R_d is as defined above), a $R_bO-CO-NR_e'-R_d$ -group (R_b , R_e' and R_d are as defined above), a $R_bO-CO-N(R_e)-R_d$ -group (R_b , R_e and R_d are as defined above), a $R_eR_e'N-CO-R_d$ -group (R_e , R_e' and R_d are as defined above), a $R_eR_e'N-CO-NR_e''-R_d$ -group (R_e , R_e' and R_e'' are the same or different, R_e and R_e' are as defined above, R_e'' has the same meaning as that of R_e , and R_d is as defined above), a $R_eR_e'N-C(=NR_e'')-R_e'''-R_d$ -group (R_e , R_e' , R_e'' and R_e''' are the same or different, R_e , R_e' and R_e'' are as defined above, R_e''' has the same meaning as that of R_e , and R_d is as defined above), a $R_b-SO_2-NR_e-R_d$ -group (R_b , R_e and R_d are as defined above), a $R_eR_e'N-SO_2-R_d$ -group (R_e , R_e' and R_d are as defined above), a $R_eR_e'N-SO_2-R_d$ -group (R_e , R_e' and R_d are as defined above), a $R_eR_e'N-SO_2-R_d$ -group (R_e , R_e' and R_d are as defined above), a $R_eR_e'N-SO_2-R_d$ -group (R_e , R_e' and R_d are as defined above), a

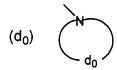
a $M_{b0}-R_d$ -group [M_{b0} represents a M_{c0} -group { M_{c0} represents a $M_{d0}-R_d$ '-group { M_{d0} represents a 6 to 10-membered aryl group optionally substituted with a M_a -group (M_a is as defined above), or 5 to 10-membered heteroaryl group optionally substituted with M_a group (M_a is as defined above), or a 3 to 10-membered hydrocarbon ring or heterocycle optionally substituted with a M_a -group (M_a is defined above) and optionally containing an unsaturated bond, or



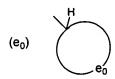
a (b_0) -group (in (b_0) , G_0 constitutes a saturated or unsaturated non-aromatic 5 to 14-membered hydrocarbon ring or heterocycle optionally having a substituent),



a (c_0) -group (in (C_0) , J_0 may contain a nitrogen atom, and constitutes an aromatic 5 to 7-membered ring),



a (d_0) -group $\{d_0 \text{ represents a 5 to 12-membered hydrocarbon ring substituted with carbonyl group or a thiocarbonyl group and, further, optionally substituted with an oxy group, a thio group, a <math>-NR_1$ -group $\{R_1 \text{ represents a hydrogen atom, or a C1-C10 alkyl group, or a C2-C10 alkyl group substituted with halogen atom or a <math>R_2$ - B_1 -group $\{R_2 \text{ represents a C1-C10 alkyl group, a C3-C10 alkenyl group or a C3-C10 alkenyl group, and <math>B_1$ represents an oxy group, a thio group, a sulfinyl group or a sulfonyl group), or a C3-C10 alkenyl group, or a C3-C10 alkenyl group, or a Sulfinyl group, or a sulfonyl group, a sulfinyl group, or a sulfonyl group, or a sulfonyl group, or



an (e_0) -group $\{e_0 \text{ constitutes a 5 to 12-membered hydrocarbon ring optionally substituted with a carbonyl group, a thiocarbonyl group, an oxy group, a thio group, a -NR₁-group <math>(R_1 \text{ is as defined above})$, a sulfinyl group or a sulfonyl group), R_d ' is the same as or different from R_d , and has the same meaning as that of R_d }, a M_{c0} - B_a -group $(M_{c0} \text{ and } B_a \text{ are as defined above})$, a M_{c0} -CO-group $(M_{c0} \text{ is as defined above})$,

defined above), a M_{c0} -CO-NR_e-group (M_{c0} and R_e are as defined above), a M_{c0} O-CO-NR_e-group (M_{c0} and R_e are as defined above), a M_{c0} R_eN-CO-group (M_{c0} and R_e are as defined above), a M_{c0} R_eN-CO-NR_e'-group (M_{c0} , R_e and R_e ' are as defined above), a M_{c0} R_eN-C(=NR_e')-NR_e"-group (M_{c0} , R_e , R_e ' and R_e " are as defined above), a M_{c0} -SO₂-NR_e-group (M_{c0} and R_e are as defined above) or M_{c0} R_eN-SO₂-group (M_{c0} and R_e are as defined above), and R_d is as defined above.];

- (3) a Z_0 group: a group which is a 5 to 12-membered hydrocarbon ring or heterocycle having a halogen atom, a C1-C10 alkoxy group, a C3-C10 alkenyloxy group, a C3-C10 alkynyloxy group, a carbonyl group, a thiocarbonyl group, an oxy group, a thio group, a sulfinyl group or a sulfonyl group, is an aromatic or non-aromatic monocyclic or fused ring, and is fused with an A ring;
- II. Q_{α} represents an optionally substituted hydroxyl group, or an optionally substituted amino group;
- III. W_{α} represents an oxygen atom or $a-NT_{\alpha}$ -group (T_{α} represents a hydrogen atom, or a substituent on a nitrogen atom.);
- IV. K_{α} and L_{α} are the same or different, and represent a hydrogen atom, or a substituent on a carbon atom, or K_{α} and L_{α} may form a C1-C10 alkylene group optionally having a substituent or a C1-C10 alkenylene group optionally having a substituent; provided that when an A ring is a benzene ring, W_{α} is an oxygen atom, L_{α} is a methyl group, K_{α} is a hydrogen atom, and Q_{α} is a C1-C4 alkoxy group, a C3-C4 alkenyloxy group or a C3-C4 alkynyloxy group, then q is not 0 and, when an A ring is a benzene ring, W_{α} is an oxygen atom, L_{α} is a methyl group, K_{α} is a hydrogen atom, and Q_{α} is a C1-C4 alkoxy group, a C3-C4 alkenyloxy group or a C3-C4 alkynyloxy group, then q is 1, and Y_{α} is not a halogen atom,

or a C1-C4 alkyl group optionally substituted with a halogen atom or a C1-C4 alkoxy group, or a nitro group, or a C1-C4 alkoxy group, or a RB-group (R represents a C1-C4 haloalkyl group, and B represents an oxy group or a thio group) and, when A is a benzene ring, W_{α} is an oxygen atom, L_{α} and K_{α} form a 1,3-butadienylene group, and Q_{α} is a methoxy group, then q is 1, and Y_{α} is not a methoxy group or an ethoxy group and, when A is a benzene ring, W_{α} is an oxygen atom, L_{α} and K_{α} form a 1,3-butadienylene group, and Q_{α} is a hydroxyl group, then q is 1, and Y_{α} is not an ethoxy group; and

the "as defined above" in the same symbol between a plurality of substituents indicates that the plurality of substituents independently represent the same meaning as that described above and, between the plurality of substituents, a selection range of selected substituents is the same, while the selected substituents may be the same or the different as far as they are selected in the range]; and an inert carrier;

2. (Original) A I type collagen gene transcription suppressing composition, which comprises a cinnamoyl compound represented by the formula (II):

$$(Y_{A0})_q$$

$$A$$

$$O$$

$$W_{A0}$$

$$L_{A0}$$

$$(II)$$

[wherein

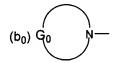
- I. A represents a benzene ring or pyridine ring;
- II. In $(Y_{A0})q$, Y_{A0} is a substituent on a carbon atom, and represents a substituent of the following X_0 group and Y_0

group, q represents 0, 1, 2, 3, 4 or 5, when q is 2 or more, Y_{A0} 's are the same or different and, when q is 2 or more, the adjacent two same or different Y_{A0} 's constitute a group of a Z_0 group, and may be fused with an A ring; (1) a X_0 group:

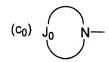
a Ma-group [Ma represents a Rb group (Rb represents a C1-C10 alkyl group optionally substituted with a halogen atom), a halogen atom, a nitro group, a cyano group, a hydroxyl group, a R_c-B_a-R_d-group (R_c represents a C1-C10 alkyl group optionally substituted with a halogen atom, Ba represents an oxy group, a thio group, a sulfinyl group or a sulfonyl group, and R_d represents a single bond or a C1-C10 alkylene group), a HORd-group (Rd is as defined above), a R_e -CO- R_d -group (R_e represents hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom, and R_d is as defined above), a R_e -CO-O- R_d -group (R_e and R_d are as defined above), a $R_eO-CO-R_d$ -group (R_e and R_d are as defined above), a HO-CO-CH=CH-group, a $R_eR_e'N-R_d$ -group (R_e and R_e' are the same or different, R_e' has the same meaning as that of R_e and R_d is as defined above), a R_e -CO-NR_e'-R_d-group (R_e , R_e' and R_d are as defined above), a $R_bC-CO-N(R_e)-R_d$ -group $(R_b, R_e \text{ and } R_d \text{ are as defined above}), a R_e R_e' N-CO-R_d-group$ (R_e, R_e') and R_d are as defined above), a R_eR_e' N-CO-NR $_e''$ - R_d group (R_e, R_e') and R_e'' are the same or different, R_e and R_e' are as defined above, $R_{\text{e}}{}^{\prime\prime}$ has the same meaning as that of R_{e} and R_d is as defined above), a $R_eR_e'N-C(=NR_e'')-NR_e'''-R_d$ group (R_e , R_e ', R_e " and R_e ''' are the same or different, R_e , R_{e}' and R_{e}'' are as defined above, R_{e}''' has the same meaning as that of R_e , and R_d is as defined above), a R_b -SO₂-NR_e-R_dgroup (R_b , R_e and R_d are as defined above), a $R_eR_e{'}N-SO_2-R_d$ group (R_e , R_e ' and R_d are as defined above), a C2-C10 alkenyl group or a C2-C10 alkynyl group.];

(2) a Y_0 group:

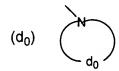
a $M_{b0}-R_d$ -group [M_{b0} represents a M_{c0} group { M_{c0} represents a $M_{d0}-R_d$ '-group { M_{d0} represents a 6 to 10-membered aryl group optionally substituted with a M_a -group (M_a is as defined above), or a 5 to 10-membered heteroaryl group optionally substituted with a M_a -group (M_a is as defined above), a 3 to 10-membered hydrocarbon ring or heterocycle optionally substituted with a M_a -group (M_a is as defined above) and optionally containing an unsaturated bond, or



a (b_0) -group (in (b_0) , G_0 constitutes a saturated or unsaturated non-aromatic 5 to 14-membered hydrocarbon ring or heterocycle optionally having a substituent),

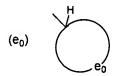


a (c_0) -group (in (c_0) , J_0 may contain a nitrogen atom, and constitutes an aromatic 5 to 7-membered ring),



a (d_0) -group $\{d_0 \text{ constitutes a 5 to 12-membered hydrocarbon ring substituted with a carbonyl group or a thiocarbonyl group and, further, optionally substituted with an oxy group, a thio group, a <math>-NR_1$ -group $\{R_1 \text{ represents a hydrogen atom, or a C1-C10 alkyl group, or a C2-C10 alkyl group substituted with a halogen atom or a <math>R_2$ - B_1 -group $\{R_2 \text{ represents a C1-C10 alkyl group, a C3-C10 alkenyl group or a C3-C10 alkynyl group, and a <math>B_1$ represents an oxy group, a thio group, a sulfinyl group or sulfonyl group), or a C3-

C10 alkenyl group, or a C3-C10 alkynyl group}, a sulfinyl group or a sulfonyl group} or



an (e_0) -group $\{e_0 \text{ represents a 5 to 12-membered hydrocarbon}\}$ ring optionally substituted with a carbonyl group, a thiocarbonyl group, an oxy group, a thio group, a -NR₁-group $(R_1 \text{ is as defined above})$, a sulfinyl group or a sulfonyl group}, R_d ' is the same as or different from R_d , and has the same meaning as that of R_d }, a $M_{c0}-B_a$ -group (M_{c0} and B_a are as defined above), a M_{c0} -CO-group (M_{c0} is as defined above), a M_{c0} -CO-O-group (M_{c0} is as defined above), a M_{c0} O-CO-group (Mc0 is as defined above), a $\text{M}_{\text{c}0}\text{R}_{\text{e}}\text{N-group}$ (Mc0 and Re are as defined above), a M_{c0} -CO-NR_e-group (M_{c0} and R_{e} are as defined above), a $M_{c0}O-CO-NR_e$ -group (M_{c0} and R_e are as defined above), a $M_{c0}R_eN$ -CO-group (M_{c0} and R_e are as defined above), a $M_{c0}R_eN$ -CO-NR $_e'$ -group (M_{c0} , R_e and R_e' are as defined above), a $M_{c0}R_eN-C(=NR_e')-NR_e''-group$ (M_{c0} , R_e , R_e' and R_e'' are as defined above), a M_{c0} -SO₂-NR_e-group (M_{c0} and R_e are as defined above) or $M_{c0}R_eN-SO_2$ -group (M_{c0} and R_e are as defined above), and R_d is as defined above.];

(3) a Z_0 group: a group which is a 5 to 12-membered hydrocarbon ring or heterocycle ring optionally having a halogen atom, a C1-C10 alkoxy group, a C3-C10 alkenyloxy group, a C3-C10 alkynyloxy group, a carbonyl group, a thiocarbonyl group, an oxy group, a thio group, a sulfinyl group or a sulfonyl group, is an aromatic or non-aromatic monocyclic or fused ring, and is fused with an A ring; III. Q_{A0} represents a hydroxyl group, a (b_0) -group $((b_0)$ is as defined above), an A_9 - B_6 - B_c -group (A_9) represents a substituent of the following A_7 group or A_8 group, B_6

represents a carbonyl group or a thiocarbonyl group, and B_c represents an oxy group or a $-N((O)_mR_1)$ -group {m represents 0 or 1, and R_1 represents a hydrogen atom, or a C1-C10 alkyl group, or a C2-C10 alkyl group substituted with a halogen atom or a R_2 - B_1 -group (R_2 represents a C1-C10 alkyl group, a C3-C10 alkenyl group or a C3-C10 alkynyl group, and B_1 represents an oxy group, a thio group, a sulfinyl group or a sulfonyl group), or a C3-C10 alkenyl group, or a C3-C10 alkynyl group}, provided that when A9 is a hydrogen atom, then B_c is not a sulfonyl group], an $A_7''-SO_2-B_c$ -group $(A_7''$ represents a substituent of the following A_7 " group, and B_c is as defined above), an $A_8-SO_2-B_c$ -group (A_8 represents a substituent of the following A_8 group, and B_c is as defined above, provided that A₈ is not a hydrogen atom), a R₁R₁'N- SO_2-B_c -group (R_1 is as defined above, R_1' and R_1 are the same or different, and has the same meaning as that of R_1 , and B_c is as defined above), a $(b_0)-SO_2-B_c$ -group $((b_0)$ and B_c are as defined above), an A9'-Bc-group (A9' represents a substituent of the following A_7' group or A_8' group, and B_c is as defined above), a $D_5-R_4-B_c$ -group (D_5 represents a substituent of the following D₅ group, R₄ represents a C1-C10 alkylene group, and B_c is as defined above), a $M_{c0}-B_3-B_c$ group (B₃ represents a carbonyl group, a thiocarbonyl group or a sulfonyl group, and M_{c0} and B_c are as defined above) or a $M_{c0}-B_{c}$ -group (M_{c0} and B_{c} are as defined above);

(1) an A_7 group:

a C2-C10 alkenyl group optionally substituted with a halogen atom, a C2-C10 alkynyl group, a C3-C10 haloalkynyl group, a R_2 - B_1 - R_4 -group (R_2 and B_1 are as defined above, and R_4 is as defined above), a D_4 - R_4 -group (D_4 represents a substituent of the following D_4 group, and R_4 is as defined above), a D_5 - R_4 -group (D_5 represents a substituent of the

following D_5 group, and R_4 is as defined above), a D_1-R_4- group (D_1 represents a substituent of the following D_1- group, and R_4 is as defined above), a (D_0-R_4- group ((D_0-R_4- group)) is as defined above, and D_0-R_4- group ((D_0-R_4- group)) is as defined above, and D_0-R_4- group (D_0-R_4- group) is as defined above, and D_0-R_4- group, a D_0-R_4- group, and D_0-R_4- group (D_0-R_4- group) (

- (2) an A_8 group: a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom;
- (3) an A_7' group: a C3-C10 alkenyl group optionally substituted with a halogen atom, a C3-C10 alkynyl group optionally substituted with a halogen atom, a R_2 - B_1 - R_4' -group (R_2 and B_1 are as defined above, and R_4' represents a C2-C10 alkylene group), a D_4 - R_4' -group (D_4 and R_4' are as defined above), a D_1 - R_4' -group (D_1 and D_4 are as defined above), a (D_1 - D_4 are as defined above), a (D_2 - D_4 are as defined above), a (D_3 - D_4 are as defined above), a D_4 - D_4 are as defined above), a D_4 -group (D_4 and D_4 are as defined above), a D_4 -group (D_4 and D_4 are as defined above), a D_4 -group (D_4 and D_4 are as defined above);
- (4) an A_8 ' group: a C1-C10 alkyl group or C2-C10 haloalkyl group;
- (5) an $A_7{}''$ group: a C2-C10 alkenyl group, a C3-C10 alkenyl group substituted with a halogen atom, a C3-C10 alkynyl group optionally substituted with a halogen atom, a R_2 - B_1 -

 R_4' -group (R_2 , B_1 and R_4' are as defined above), a D_4 - R_4' -group (D_4 and R_4' are as defined above), a D_5 - R_4 -group (D_5 and R_4 are as defined above), a D_1 - R_4' -group (D_1 and D_4' are as defined above), (D_1 - D_4' -group (D_2 -group (D_3 -group (D_4 -group

- (i) a D_4 -group: a hydroxy group or an A_1 -O-group [A_1 represents a R_3 -(CHR₀)_m-(B_2 - B_3)-m'-group { R_3 represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom or a R_2 - B_1 -group (R_2 and B_1 are as defined above), or a C2-C10 alkenyl group, or a C2-C10 alkynyl group, R_0 represents a hydrogen atom, a C1-C10 alkyl group or a C2-C10 haloalkyl group, m is as defined above, B_2 represents a single bond, an oxy group, a thio group or a -N((O)_n R_1 ')-group (R_1 ' is as defined above, and n represents 0 or 1), B_3 is as defined above, m' represents 0 or 1 and, when B_3 is a sulfonyl group, then m is 0, and R_3 is not a hydrogen atom}];
- (ii) a D_5 group: an $O=C(R_3)$ -group (R_3 is as defined above), an $A_1-(O)_n-N=C(R_3)$ -group (A_1 , n and R_3 are as defined above), a $R_1-B_0-CO-R_4-(O)_n-N=C(R_3)$ -group [R_1 , R_4 , n and R_3 are as defined above, and B_0 represents an oxy group, a thio group or a $-N((O)_mR_1')$ -group (R_1' and m are as defined above)], a $D_2-R_4-(O)_n-N=C(R_3)$ -group (D_2 , D_3 , n and D_3 are as defined above) or a D_3 - D_3 -group (D_3)-group (D_3)-group
- (iii) a D_1 group: a $(R_1-(O)_k-)A_1N-(O)_k'$ -group $(R_1$ and A_1 are as defined above, and k and k' are the same or different and represent 0 or 1);

(iv) a D_2 group: a cyano group, a $R_1R_1'NC(=N-(O)_n-A_1)$ -group $(R_1, R_1', n \text{ and } A_1 \text{ are as defined above})$, an $A_1N=C(-OR_2)$ -group $(A_1 \text{ and } R_2 \text{ are as defined above})$ or a NH_2-CS -group; (v) a D_3 group: a nitro group or a R_1OSO_2 -group $(R_1 \text{ is as defined above})$;

(vi) an A₂ group:

1) an A_3-B_4 -group

 $[A_3]$ represents a hydrogen atom, or a C1-C10 alkyl group, or a C2-C10 haloalkyl group, or a C2-C10 alkenyl group optionally substituted with a halogen atom, or a C3-C10 alkynyl group optionally substituted with a halogen atom, or a $R_a-(R_4)_m$ -group (R_a represents a phenyl group, a pyridyl group, a furyl group or a thienyl group, optionally substituted with a halogen atom, C1-C10 alkyl group, a C1-C10 alkoxy group or a nitro group, R4 and m are as defined above), or a C1-C10 alkyl group substituted with a $(b_0)-R_4$ group ((b_0) and R_4 are as defined above), a ((c_0)- R_4 -group $((c_0)$ and R_4 are as defined above), a $R_2-B_1-R_4$ -group (R_2, B_1) and R_4 are as defined above), a D_4-R_4 -group (D_4 and R_4 are as defined above), a D_5 -group (D_5 is as defined above), a D_1 - R_4 group (D_1 and R_4 are as defined above), a D_2 -group (D_2 is as defined above), a D_3-R_4 -group (D_3 and R_4 are as defined above) or an R_4 -SO₂- R_4 -group {A₄ is as defined above, and R_4 is as defined above };

 B_4 represents an oxy group, a thio group or a - $N((O)_mR_1)$ group $(R_1$ and m are as defined above), provided that when B_4 is a thio group, then A_3 is not a hydrogen atom.];

2) a R_1 - B_4 -CO- R_4 - B_4 '-group (R_1 , B_4 and R_4 are as defined above, B_4 ' is the same as or different from B_4 , and has the same meaning as that of B_4 , provided that when B_4 is a thio

group, then R_2 is not hydrogen atom) or a $D_2-R_4-B_4$ -group (D_2 , R_4 and B_4 are as defined above);

- 3) a R_2 -SO₂-NR₁-group (R_2 is as defined above, provided that a hydrogen atom is excluded; R_1 is as defined above);
- 4) a (b_0) -group $((b_0)$ is as defined above);
- 5) a (c_0) -group $((c_0)$ is as defined above); or
- 6) a $R_1-A_1N-NR_1'$ -group (R_1 , A_1 and R_1' are as defined above); IV. W_{A0} represents an oxygen atom or a $-NT_{A0}$ -group [T_{A0} represents a hydrogen atom, an A_9' group (A_9' is as defined above), a D_5-R_4 -group (D_5 and R_4 are as defined above) or a M_{c0} -group (M_{c0} is as defined above)];
- V. Kao represents a hydrogen atom, a halogen atom or a C1-C10 alkyl group, L_{A0} represents a hydrogen atom, a C1-C10 alkyl group or a M_{b0} -group (M_{b0} is as defined above), or K_{A0} and L_{A0} may form a C1-C10 alkylene group, or a C1-C10 alkenylene group optionally substituted with single or the same or different plural Ma groups, provided that when an A ring is a benzene ring, W_{A0} is an oxygen atom, L_{A0} is a methyl group, K_{AO} is a hydrogen atom, and Q_{AO} is a C1-C4 alkoxy group, a C3-C4 alkenyloxy group or a C3-C4 alkynyloxy group, then g is not 0 and, when an A ring is a benzene ring, W_{A0} is an oxygen atom, L_{A0} is a methyl group, K_{AO} is a hydrogen atom, and Q_{AO} is a C1-C4 alkoxy group, a C3-C4 alkenyloxy group or a C3-C4 alkynyloxy group, then q is 1, and Y_{AO} is not a halogen atom, or a C1-C4 alkyl group optionally substituted with a halogen atom or a C1-C4 alkoxy group, or a nitro group, or a C1-C4 alkoxy group, or a RB-group (R represents a C1-C4 haloalkyl group, and B represents an oxy group or a thio group) and, when A is a benzene ring, W_{A0} is an oxygen atom, L_{A0} and K_{A0} form a 1,3butadienylene group, and Q_{AO} is a methoxy group, q is 1, and Y_{AO} is not a methoxy group or an ethoxy group and, when A is

a benzene ring, W_{A0} is an oxygen atom, L_{A0} and K_{A0} form a 1,3-butadienylene group, and Q_{A0} is a hydroxy group, then q is 1, and Y_{A0} is not an ethoxy group; and the "as defined above" in the same symbol between a plurality of substituents indicates that the plurality of the substituents independently represent the same meaning as that described above and, between the plurality of substituents, a selection range of selected substituents is the same, while the selected substituents may be the same or the different as far as they are selected in the range]; and an inert carrier;

3. (Original) A I type collagen gene transcription suppressing composition, which comprises a cinnamoyl compound represented by the formula (III):

$$(Y_A)_q$$
 A
 O
 Q_A
 K_A
 O
 W_A
 L_A

[wherein

I. A represents a benzene ring or a pyridine ring; II. In $(Y_A)_q$, Y_A is a substituent on a carbon atom, and represents a substituent of the following X group or Y group, q represents 0, 1, 2, 3, 4 or 5, when q is 2 or more, Y_A 's are the same or the different and, when q is 2 or more, the adjacent two same or different Y_A 's constitute a group of a Z group, and may be fused with an A ring; (1) a X group: a M_A -group [M_A represents a R_B -group (R_B represents a C1-C10 alkyl group optionally substituted with a halogen atom), a halogen atom, a nitro group, a cyano group, a hydroxy group, a R_C - B_A - R_C -group (R_C represents a C1-

C10 alkyl group optionally substituted with a halogen atom, Ba represents an oxy group, a thio group, a sulfinyl group or a sulfonyl group, and R_d represents a single bond or a C1-C10 alkylene group), a HOR_d-group (R_d is as defined above), a Re-CO-Rd-group (Re represents a hydrogen atom, or a C1-C10 alky group optionally substituted with a halogen atom, and R_d is as defined above), a R_e -CO-O- R_d -group (R_e and R_d are as defined above), a $R_eO-CO-R_d$ -group (R_e and R_d are as defined above), a HO-CO-CH=CH-group, a R_eR_e'N-R_d-group (R_e and Re' are the same or different, Re is as defined above, R_{e}' has the same meaning as that of R_{e} , and R_{d} is as defined above), a R_e -CO-N R_e '- R_d -group (R_e , R_e '- R_d are as defined above), a $R_bO-CO-N(R_e)-R_d$ -group (R_b , R_e and R_d are as defined above), a $R_eR_e'N-CO-R_d$ -group (R_e , R_e' and R_d are as defined above), a $R_eR_e{'}\,N\text{-CO-NR}_e{''}\text{-}R_d\text{-group}$ ($R_e,\ R_e{'}$ and $R_e{''}$ are the same or different R_e and $R_{e'}$ are as defined above, $R_{e''}$ has the same meaning as that of R_e , and R_d is as defined above), a $R_eR_e'N-C(=NR_e'')-NR_e'''-R_d$ -group (R_e , R_e' , R_e'' and R_e''' are the same or different, R_e , R_e' and R_e'' are as defined above, $R_e^{\prime\prime\prime}$ has the same meaning as that of R_e and R_d is as defined above), a $R_b-SO_2-NR_e-R_d$ -group (R_b , R_e and R_d are as defined above), $R_eR_e'N-SO_2-R_d$ -group (R_e , R_e' and R_d are as defined above), a C2-C10 alkenyl group or a C2-C10 alkynyl group];

(2) a Y group: a M_b - R_d -group [M_b represents a M_c -group { M_c represents a M_d - R_d '-group { M_d represents a phenyl group optionally substituted with a M_a -group (M_a is as defined above), or a pyridyl group optionally substituted with a M_a -group (M_a is as defined above), or a naphthyl group optionally substituted with a M_a -group (M_a is as defined above), or

(b)
$$G_3^{G_2-G_1}N - G_5$$

a (b)-group {in (b), G_1 , G_2 , G_4 and G_5 represent a methylene group which is connected to an adjacent atom with a single bond and may be substituted with a methyl group, or a methine group which is connected to an adjacent atom with a double bond, G₃ represents a single bond, or a double bond, or a C1-C10 alkylene group optionally substituted with a methyl group, an oxy group, a thio group, a sulfinyl group, a sulfonyl group or $a-NR_1$ -group $\{R_1 \text{ represents a hydrogen }$ atom, or a C1-C10 alkyl group, or a C2-C10 alkyl group substituted with a halogen atom or a R_2 - B_1 -group (R_2 represents a C1-C10 alkyl group, a C3-C10 alkenyl group or a C3-C10 alkynyl group, and B_1 represents an oxy group, a thio group, a sulfinyl group or a sulfonyl group), or a C3-C10 alkenyl group, or a C3-C10 alkynyl group}, or a C2-C10 alkenylene group optionally substituted with a methyl group, an oxy group, a thio group, a sulfinyl group, a sulfonyl group or a $-NR_1$ -group (R_1 is as defined above)},

(c)
$$J_{3} > N$$

a (c)-group (in (c), J_1 , J_2 and J_3 are the same or different, and represent a methine group optionally substituted with a methine group, or a nitrogen atom),

(d)
$$N \longrightarrow B_b$$

a (d)-group (l is 2, 3 or 4, and B_{b} represents an oxy group or a thio group) or

(e)
$$B_b \longrightarrow (CH_2)_1$$

an (e)-group (1 and B_b are as defined above), R_d ' is the same as or different from R_d , and has the same meaning as that of R_d }, a M_c - B_a -group (M_c and B_a are as defined above), a M_c -CO-group (M_c is as defined above), a M_c -CO-O-group (M_c is as defined above), a M_cO-CO -group (M_c is as defined above), a M_cR_eN -group (M_c and R_e are as defined above), a M_c - $CO-NR_e$ -group (M_c and R_e are as defined above), a $M_cO-CO-NR_e$ group (M_c and R_e are as defined above), a M_cR_eN -CO-group (M_c and R_e are as defined above), a $M_cR_eN-CO-NR_e'-group$ (M_c , R_e and Re' are as defined above), a McReN-C(=NRe')-NRe"-group (M_c , R_e , R_e^\prime and $R_e^{\prime\prime}$ are as defined above), a M_c -SO₂-NR_e-group $(M_c \text{ and } R_e \text{ are as defined above})$ or a $M_cR_eN-SO_2$ -group $(M_c \text{ and } M_cR_eN-SO_2)$ R_e are as defined above), and R_d is as defined above]; (3) a Z group: a $-N=C(Y_a)-Y_a'$ -group (Y_a represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom, or a C1-C10 alkoxy group, Y_a represents an oxy group, or a thio group, or an imino group optionally substituted with a C1-C10 alkyl group), a $-Y_b-Y_b'-Y_b''$ -group (Y_b and Y_b'' are the same or different, and represent a methylene group, or an oxy group, or a thio group, or a sulfinyl group, or an imino group optionally substituted with a C1-C10 alkyl group, and Y_b ' represents a C1-C4 alkylene group optionally substituted with a halogen atom, or a C1-C4 alkylene group optionally having an oxo group) or a $-Y_c-O-Y_c'-O$ -group (Y_c and Y_c' are the same or different, and represent a C1-C10 alkylene group);

III. Q_A represents a hydroxyl group, a (b)-group ((b) is as defined above), an $A_9-B_6-B_c$ -group [A_9 represents a substituent of the following A₇ group or A₈ group, B₆ represents a carbonyl group or a thiocarbonyl group, Bc represents an oxy group or a $-N((O)_mR_1)$ -group (m represents 0 or 1, and R_1 is as defined above), provided that when A_2 is a hydrogen atom, B_c is not a sulfonyl group], an $A_7''-SO_2 B_c$ -group (A_7 " represents a substituent of the following A_7 " group, and B_c is as defined above), an $A_8-SO_2-B_c$ -group (A_8 represents a substituent of the following A_8 group, B_c is as defined above, provided that A_8 is not a hydrogen atom), a $R_1R_1'N-SO_2-B_c$ -group (R_1 is as defined above, R_1' is the same as or different from R_1 , and has the same meaning as that of R_1 , and B_c is as defined above), a (b)- SO_2 - B_c -group ((b) and B_c are as defined above), an $A_9'-B_c$ -group (A_9' represents a substituent of the following A_7 group or A_8 group, and B_c is as defined above), a $D_5-R_4-B_c$ -group (D_5 represents a substituent of the following D_5 group, R_4 represents a C1-C10 alkylene group, and B_c is as defined above), a M_c - B_3 - B_c group (B₃ represents a carbonyl group, a thiocarbonyl group or a sulfonyl group, and M_c and B_c are as defined above) or a M_c-B_c -group (M_c and B_c are as defined above);

(1) an A_7 group:

a C2-C10 alkenyl group optionally substituted with a halogen atom, a C2-C10 alkynyl group, a C3-C10 haloalkynyl group, a R_2 - B_1 - R_4 -group (R_2 and B_1 are as defined above, and R_4 is as defined above), a D_4 - R_4 -group (D_4 represents a substituent of the following D_4 group, and R_4 is as defined above), a D_5 - R_4 -group (D_5 represents a substituent of the following D_5 group, and R_4 is as defined above), a D_1 - R_4 -group (D_1 represents a substituent of the following D_1 group, and D_4 is as defined above), a (b)- D_4 -group ((b) is

as defined above, and R_4 is as defined above), a (c)- R_4 -group ((c) is as defined above, and R_4 is as defined above), a D_2 - R_4 -group { D_2 represents a substituent of the following D_2 group, and R_4 is as defined above}, a D_3 - R_4 -group { D_3 represents a substituent of the following D_3 group, and R_4 is as defined above}, an A_4 - SO_2 - R_4 -group { A_4 represents a (b)-group ((b) is as defined above), a (c)-group ((c) is as defined above) or a R_1R_1 'N-group (R_1 and R_1 ' are as defined above), and R_4 is as defined above} or an A_2 -CO- R_4 -group (A_2 represents a substituent of the following A_2 group, and R_4 is as defined above);

- (2) an A_8 group: a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom;
- (3) an A_7' group: a C3-C10 alkenyl group optionally substituted with a halogen atom, a C3-C10 alkynyl group optionally substituted with a halogen atom, a R_2 - B_1 - R_4' -group (R_2 and B_1 are as defined above, and R_4' represents a C2-C10 alkylene group), a D_4 - R_4' -group (D_4 and R_4' are as defined above), a D_1 - R_4' -group (D_1 and D_4 are as defined above), a (b)- D_4 -group ((b) and D_4 are as defined above), a (c)- D_4 -group ((c) and D_4 are as defined above), a D_4 -group (D_4 are as defined above), a D_4 -group (D_4 are as defined above), a D_4 -group (D_4 are as defined above), a D_4 -group (D_4 and D_4 -group (D_4 are as defined above);
- (4) an A_8 ' group: a C1-C10 alkyl group or a C2-C10haloalkyl group;
- (5) an A_7 " group: a C2-C10 alkenyl group, a C3-C10 alkenyl group substituted with a halogen atom, a C3-C10 alkynyl group optionally substituted with a halogen atom, a R_2 - B_1 - R_4 '-group (R_2 , B_1 and R_4 ' are as defined above), a D_4 - R_4 '-group (D_4 and R_4 ' are as defined above), a D_5 - R_4 -group (D_5 and D_4 are as defined above), a D_1 - D_4 - D_4 -group (D_4 and D_5 - D_4 -group (D_5) and D_4 - D_4 - D_4 -group (D_4 - D_5 - D_4 -group (D_5 - D_5 - D_5 - D_4 -group (D_5 - D_5

- as defined above), a (b)- R_4 '-group ((b) and R_4 ' are as defined above), a (c)- R_4 '-group ((c) and R_4 ' are as defined above), a D_2 - R_4 -group (D_2 and R_4 are as defined above), a NO_2 - R_4 -group (R_4 is as defined above) or an A_2 -CO- R_4 -group (A_2 and A_4 are as defined above);
- (i) a D₄ group: a hydroxyl group or an A_1 -O-group [A_1 represents a R_3 -(CHR₀)_m-(B_2 -B₃)_m,-group { R_3 represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom or a R_2 -B₁-group (R_2 and B₁ are as defined above), or a C2-C10 alkenyl group, or a C2-C10 alkynyl group, R_0 represents a hydrogen atom, a C1-C10 alkyl group or a C2-C10haloalkyl group, m is as defined above, B_2 represents a single bond, an oxy group, a thio group or a -N(O)_n R_1 '-group (R_1 ' is as defined above, and n represents 0 or 1), B_3 is as defined above, m' represents 0 or 1 and, when B_3 is a sulfonyl group, m is 0, and R_3 is not a hydrogen atom}];
- (ii) a D_5 group: $O=C(R_3)$ -group (R_3 is as defined above), an $A_1-(O)_n-N=C(R_3)$ -group (A_1 , n and R_3 are as defined above), a $R_1-B_0-CO-R_4-(O)_n-N=C(R_3)$ -group [R_1 , R_4 , n and R_3 are as defined above, and B_0 represents an oxy group, a thio group or a $-N(O)_mR_1'$)-group (R_1' and m are as defined above)], a $D_2-R_4-(O)_n-N=C(R_3)$ -group (D_2 , D_3 , n and D_3 are as defined above) or a D_3 - D_3 -group (D_3 , D_4 , n and D_3 are as defined above);
- (iii) a D_1 group: a $(R_1-(O)_k-)A_1N-(O)_{k'}$ -group $(R_1$ and A_1 are as defined above, and k and k' are the same or different, and represent 0 or 1);
- (iv) a D group: a cyano group, a $R_1R_1'NC'$ (=N-(O)_n-A₁)-group (R₁, R₁', n and A₁ are as defined above), an A₁N=C(-O-)group (A₁ and R₂ are as defined above) or a NH₂-CS-group;

- (v) a D_3 group: a nitro group or a R_1OSO_2 -group (R_1 is as defined above);
- (vi) an A₂ group:
- 1) an A_3-B_4 -group

[A3 represents a hydrogen atom, or a C1-C10 alkyl group, or a C2-C10 haloalkyl group, or a C2-C10 alkenyl group optionally substituted with a halogen atom, or a C3-C10 alkynyl group optionally substituted with a halogen atom, or a $R_a-(R_4)_m$ -group (R_a represents a phenyl group, a pyridyl group, a furyl group or a thienyl group, optionally substituted with a halogen atom, a C1-C10 alkyl group, a C1-C10 alkoxy group or a nitro group, and R4 and m are as defined above), or a C1-C10 alkyl group substituted with a (b) $-R_4$ -group ((b) and R_4 are as defined above), a (c) $-R_4$ group ((c) and R_4 are as defined above), a $R_2-B_1-R_4$ -group (R_2 , B_1 and R_4 are as defined above), a D_4 - R_4 -group (D_4 and R_4 are as defined above), a D_5 -group (D_5 is as defined above), a D_1-R_4 -group (D_1 and R_4 are as defined above), a D_2 -group (D_2 is as defined above), a D_3 - R_4 -group (D_3 and R_4 are as defined above) or an $A_4-SO_2-R_4$ -group { A_4 is as defined above, and R_4 is as defined above};

 B_4 represents an oxy group, a thio group or a - $N((O)_mR_1)$ - group (R_1 and m are as defined above) provided that when B_4 is a thio group, A_3 is not a hydrogen atom]; 2) a R_1 - B_4 -CO- R_4 - B_4 '-group (R_1 , B_4 and R_4 are as defined above, B_4 ' is the same as or different from B_4 , and has the same meaning as that of B_4 , provided that when B_4 is a thio group, a R_2 is not a hydrogen atom) or a D_2 - R_4 - B_4 -group (D_2 , R_4 and B_4 are as defined above);

- 3) a R_2 -SO₂-NR₁-group (R_2 is as defined above, provided that a hydrogen atom is excluded, and R_1 is as defined above);
- 4) a (b)-group ((b) is as defined above);

- 5) a (c)-group ((c) is as defined above); or
- 6) a $R_1A_1N-NR_1'$ -group (R_1 , A_1 and R_1' are as defined above); IV. W_A represents an oxygen atom or a $-NT_A$ -group [T_A represents a hydrogen atom, an A_9' -group (A_9' is as defined above), a D_5-R_4 -group (D_5 and R_4 are as define above) or a M_c -group (M_c is as defined above)];
- V. K_A represents a hydrogen atom, a halogen atom or a C1-C10 alkyl group, L_A represents a hydrogen atom, a C1-C10 alkyl group or a M_b -group (M_b is as defined above), or K_A and L_A may form a C1-C10 alkylene group or a $-C(M_a'')=C(M_a''')-C(M_a'''')$ are the same or different, are the same as or different from M_a , and represent a hydrogen atom or M_a ; and

provided that when an A ring is a benzene ring, W_A is an oxygen atom, L_{A} is a methyl group, K_{A} is a hydrogen atom, and Q_A is a C1-C10 alkoxy group, a C3-10 alkenyloxy group or a C3-C10 alkynyloxy group, then q is not 0 and, when an A ring is a benzyl ring, W_A is an oxygen atom, L_A is a methyl group, K_A is a hydrogen atom, and Q_A is a C1-C10 alkoxy group, a C3-C10 alkenyloxy group or a C3-C10 alkynyloxy group, then q is 1, and Y_A is not a halogen atom, or C1-C10 alkyl group optionally substituted with a halogen atom or a C1-C10 alkoxy group, or a nitro group, or a C1-C10 alkoxy group, or a RB-group (R represents a C1-C10haloalkyl group and B represents an oxy group or a thio group) and, when A is a benzene ring, W_{A} is an oxygen atom, L_{A} and K_{A} form a 1,3-butadienylene group, and Q_A is a hydroxyl group or a C1-C10 alkoxy group, then q is 1, and $Y_{\mathtt{A}}$ is not a C1-C10 alkoxy group; and

the "as defined above" in the same symbol between a plurality of substituents indicates that the plurality of substituents independently represent the same meaning as

that described above and, between the plurality of substituents, a selection range of selected substituents is the same, while the selected substituents may be the same or different as far as they are selected in the range]; and an inert carrier;

4. (Original) A I type collagen gene transcription suppressing composition, which comprises a 2H-pyran-2-one compound represented by the formula (IV):

[wherein

I. A represents a benzene ring or a pyridine ring; II. In $(X_a)_p$, X_a is a substituent on a carbon atom, and represents a halogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom or a C1-C10 alkoxy group, or a nitro group, a C1-C10 alkoxy group, or a RB-group (R represents a C1-C10 haloalkyl group, and B represents an oxy group or a thio group), p represents 0, 1, 2, 3 or 4 and, when p is 2 or more, X_a 's are the same or different;

III. In $(Y_a)_q$, Y_a is a substituent on a carbon atom, and represents a substituent of the following X_1 group or Y_1 group, q represents 0, 1, 2, 3, 4 or 5, when q is 2 or more, Y_a 's are the same or different and, when q is 2 or more, the adjacent two same or different Y_a 's constitute a Z_1 group, and may be fused with an A ring;

(1) a X_1 group:

a Ma-group [Ma represents a Rb-group (Rb represents a C1-C10 alkyl group optionally substituted with a halogen atom), a halogen atom, a nitro group, a cyano group, a hydroxyl group, a R_c-B_a-R_d-group (R_c represents a C1-C10 alkyl group optionally substituted with a halogen atom, Ba represents an oxy group, a thio group, a sulfinyl group or a sulfonyl group, and R_d represents a single bond or a C1-C10 alkylene group), a HOR_d -group (R_d is as defined above), a R_e-CO-R_d-group (R_e represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom, and R_d is as defined above), a R_e -CO-O- R_d -group (R_e and R_d are as defined above), a $R_eO-CO-R_d$ -group (R_e and R_d are as defined above), a HO-CO-CH=CH-group, a $R_eR_e'N-R_d-group$ (R_e and R_e' are the same or different, Re is as defined above, Re' has the same meaning as that of R_e , and R_d is as defined above), a R_e -CO-N R_e '- R_d -group (R_e , R_e ' and R_d are as defined above), a $R_bO-CO-N(R_e)-R_d$ -group (R_b , R_e and R_d are as defined above), a $R_eR_e'N-CO-R_d$ -group (R_e , R_e' and R_d are as defined above), a $R_eR_e'N-CO-NR_e''-R_d$ -group (R_e , R_e' and R_e'' are the same or different, R_e and R_{e}' are as defined above, R_{e}'' has the same meaning as that of R_e , and R_d is as defined above), a $R_eR_e'N$ - $\text{C(=NR}_{e}")\,\text{-NR}_{e}"'\,\text{-R}_{d}\text{-group}$ (Re, Re', Re" and Re"' are the same or different, R_e , R_e ' and R_e " are as defined above, R_e "' has the same meaning as that of R_e , and R_d is as defined above), a $R_b-SO_2-NR_e-R_d$ -group (R_b , R_e and R_d are as defined above), a $R_eR_e'N-SO_2-R_d$ -group(R_e , R_e' and R_d are as defined above), a C2-C10 alkenyl group or a C2-C10 alkynyl group], provided that when A represents a benzene ring, a X_a -group (X_a is as defined above) is excluded;

(2) a Y_1 group:

a M_b-R_d -group [M_b represents a M_c -group { M_c represents a M_d-R_d '-group { M_d represents a phenyl group optionally

substituted with a M_a -group (M_a is as defined above), or a pyridyl group optionally substituted with a M_a -group (M_a is as defined above) or a naphthyl group optionally substituted with a M_a -group (M_a is as defined above), or

(b)
$$G_3 N - G_5$$

a (b)-group {in (b), G_1 , G_2 , G_4 and G_5 represent a methylene group which is connected to an adjacent atom with a single bond and may be substituted with a methyl group, or a methine group which is connected to an adjacent atom with a double bond and may be substituted with a methyl group, and G_3 represents a single bond, or a double bond, or a C1-C10 alkylene group optionally substituted with a methyl group, an oxy group, a thio group, a sulfinyl group, a sulfonyl group or a $-NR_1$ -group $\{R_1 \text{ represents a hydrogen atom, or a}$ C1-C10 alkyl group, or a C2-C10 alkyl group substituted with a halogen atom or a R_2 - B_1 -group (R_2 represents a C1-C10 alkyl group, a C-C10 alkenyl group or a C3-C10 alkynyl group, and B_1 represents an oxy group, a thio group, a sulfinyl group or a sulfonyl group), or a C3-C10 alkenyl group, or a C3-C10 alkynyl group}, or a C2-C10 alkenylene group optionally substituted with a methyl group, an oxy group, a thio group, a sulfinyl group, a sulfonyl group or a -NR₁-group (R₁ is as defined above)},

(c)
$$J_{3}^{J_2=J_1}N$$
—

a (c)-group (in (c), J_1 , J_2 and J_3 are the same or different, and represent a methine group optionally substituted with a methyl group, or a nitrogen atom),

(d)
$$N \longrightarrow B_b$$

a (d)-group (1 is 2, 3 or 4, and B_b represents an oxy group, or a thio group), or

(e)
$$B_b \longrightarrow B_b$$

(3) a Z_1 group:

a $-N=C(Y_a)-Y_a'$ -group (Y_a represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom, or a C1-C10 alkoxy group, and Y_a' represents an oxy group, or a thio group, or an imino group optionally substituted with a C1-C10 alkyl group), a $-Y_b-Y_b'-Y_b''$ -group (Y_b and Y_b" are the same or different, and represent a methylene group, or an oxy group, or a thio group, or a sulfinyl group, or an imino group optionally substituted with a C1-C10 alkyl group, and Y_b' represents a C1-

C4alkylene group optionally substituted with a halogen atom, or a C1-C4 alkylene group optionally having an oxo group) or a $-Y_c-O-Y_c'-O$ -group (Y_c and Y_c' are the same or different, and represent a C1-C10 alkylene group); IV. Q_A represents a hydroxyl group, a (b)-group ((b) is as defined above), an $A_9-B_6-B_c$ -group [A_9 represents a substituent of the following A₇ group or A₈ group, B₆ represents a carbonyl group or a thiocarbonyl group, Bc represents an oxy group or a $-N((0)_mR_1)$ -group (m represents 0 or 1, and R_1 is as defined above), provided that when A_9 is a hydrogen atom, B_c is not a sulfonyl group], an $A_7''-SO_2 B_c$ -group (A_7 " represents a substituent of the following A_7 " group, and B_c is as defined above), an $A_8-SO_2-B_c$ -group (A_8 represents a substituent of the following A₈ group, and B_c is as defined above, provided that A₈ is not a hydrogen atom), a $R_1R_1'N-SO_2-Bc$ -group (R_1 is as defined above, R_1' is the same as or different from R_1 , and has the same meaning as that of R_1 , and B_c is as defined above), a (b)- SO_2 - B_c group ((b) and B_c are as defined above), an $A_9'-B_c$ -group (A_9' represents a substituent of the following A7' group or A8' group, and B_c is as defined above), a $D_5-R_4-B_c$ -group (D_5 represents a substituent of the following D₅ group, R₄ represents a C1-C10 alkylene group, and B_c is as defined above), M_c-B₃-B_c-group (B₃ represents a carbonyl group, a thiocarbonyl group or a sulfonyl group and M_c and B_c are as defined above) or a M_c - B_c -group (M_c and B_c are as defined above);

(1) an A_7 group:

a C2-C10 alkenyl group optionally substituted with a halogen atom, a C2-C10 alkynyl group, a C3-C10 haloalkynyl group, a R_2 - B_1 - R_4 -group (R_2 and B_1 are as defined above, and R_4 is as defined above), a D_4 - R_4 -group (D_4 represents a

substituent of the following D_4 group, and R_4 is as defined above), a D_5-R_4 -group (D_5 represents a substituent of the following D_5 group, R_4 is as defined above), a D_1-R_4 -group $\{D_1 \text{ represents a substituent of the following } D_1 \text{ group, and }$ R_4 is as defined above}, a (b)- R_4 -group {(b) is as defined above, and R_4 is as defined above), a (c)- R_4 -group ((c) is as defined above, and R_4 is as defined above), a D_2-R_4 -group $\{D_2 \text{ represents a substituent of the following } D_2 \text{ group, and }$ R_4 is as defined above}, a D_3-R_4 -group { D_3 represents a substituent of the following D_3 group, and R_4 is as defined above}, an A_4 -SO₂-R₄-group { A_4 represents a (b)-group ((b) is as defined above), a (c)-group ((c) is as defined above) or a $R_1R_1'N$ -group (R_1 and R_1' are as defined above), and R_4 is as defined above} or an A2-CO-R4-group (A2 represents a substituent of the following A_2 group, and R_4 is as defined above);

- (2) an A_8 group: a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom;
- (3) an A_7' group: a C3-C10 alkenyl group optionally substituted with a halogen atom, a C3-C10 alkynyl group optionally substituted with a halogen atom, a R_2 - B_1 - R_4' -group (R_2 and B_1 are as defined above, and R_4' represents a C_2 -C10 alkylene group), a D_4 - R_4' -group (D_4 and R_4' are as defined above), a D_1 - R_4' -group (D_1 and D_4 are as defined above), a (b)- D_4 -group ((b) and D_4 are as defined above), a (c)- D_4 -group ((c) and D_4 are as defined above), a D_4 - D_4 -group (D_4 are as defined above), a D_4 - D_4 -group (D_4 and D_4 are as defined above) or an D_4 - D_4 -group (D_4 and D_4 -group (D_4 -group (D
- (4) an A_8 ' group: a C1-C10 alkyl group or a C2-C10 haloalkyl group;

- (5) an A_7'' group: a C2-C10 alkenyl group, a C3-C10 alkenyl group substituted with a halogen atom, a C3-C10 alkynyl group optionally substituted with a halogen atom, a R_2 - B_1 - R_4' -group (R_2 , B_1 and R_4' are as defined above), a D_4 - R_4' -group (D_4 and D_4 are as defined above), a D_5 - D_4 -group (D_5 and D_4 are as defined above), a D_1 - D_4 -group (D_1 and D_4 are as defined above), (b)- D_4 -group ((b) and D_4 -are as defined above), a (c)- D_4 -group ((c) and D_4 -are as defined above), a D_2 - D_4 -group (D_4 -are as defined above), a D_4 - D_4 -group (D_4 -are as defined above), a D_4 -group (D_4 -are as defined above);
- (i) a D_4 group: a hydroxyl group or an A_1 -O-group $[A_1]$ represents a R_3 -(CHR₀)_m-(B_2 - B_3)_{m'}-group $\{R_3\}$ represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom or a R_2 - B_1 -group (R_2 and B_1 are as defined above), or a C2-C10 alkenyl group, or a C2-C10 alkynyl group, R_0 represents a hydrogen atom, a C1-C10 alkyl group or a C2-C10 haloalkyl group, m is as defined above, B_2 represents a single bond, an oxy group, a thio group or a $-N(O)_nR_1'$)-group (R_1' is as defined above, and n represents 0 or 1, B_3 is as defined above, m' represents 0 or 1 and, when B_3 is a sulfonyl group, m is 0, and R_3 is not a hydrogen atom)}];
- (ii) a D₅ group: an O=C(R₃)-group (R₃ is as defined above), an A₁-(O)_n-N=C(R₃)-group (A₁, n and R₃ are as defined above), a R₁-B₀-CO-R₄-(O)_n-N=C(R₃)-group [R₁, R₄, n and R₃ are as defined above, and B₀ represents an oxy group, a thio group or a -N((O)_mR₁')-group (R₁' and m are as defined above)], a D₂-R₄-(O)_n-N=C(R₃-group (D₂, R₄, n and R₃ are as defined above) or a R₁A₁N-N=C(R₃)-group (R₁, A₁ and R₃ are as defined above);

- (iii) a D_1 group: a $(R_1-(O)_k-)A_1N-(O)_{k'}$ -group $(R_1$ and A_1 are as defined above, and k and k' are the same or different, and represent 0 or 1);
- (iv) a D_2 group: a cyano group, a $R_1R_1'NC(=N-(0)_n-A)$ -group (R_1 , R_1' , n and N_1 are as defined above), an $A_1N=C(-OR_2)$ -group (A_1 and R_2 are as defined above) or a NH_2 -CS-group.
- (v) a D_3 group: a nitro group or a R_1OSO_2 -group (R_1 is as defined above);
- (vi) an A₂ group:
- 1) an A_3-B_4 -group

[A₃ represents a hydrogen atom, or a C1-C10 alkyl group, or a C2-C10 haloalkyl group, or a C2-C10 alkenyl group optionally substituted with a halogen atom, or a C3-C10 alkynyl group optionally substituted with a halogen atom, or a $R_a-(R_4)_m$ -group (R_a represents a phenyl group, a pyridyl group, a furyl group or a thienyl group, optionally substituted with a halogen atom, a C1-C10 alkyl group, a C1-C10 alkoxy group or a nitro group, and R4 and m are as defined above), or a C1-C10 alkyl group substituted with a (b)- R_4 -group ((b) and R_4 are as defined above), a (c)- R_4 group ((c) and R_4 are as defined above), a $R_2-B_1-R_4$ -group $(R_2, B_1 \text{ and } R_4 \text{ are as defined above}), a D_4-R_4-group (D_4 \text{ and } R_4$ are as defined above), a D₅-group (D₅ is as defined above), a D_1-R_4 -group (D_1 and R_4 are as defined above), a D_2 -group $(D_2 \text{ is as defined above})$, a D_3 - R_4 -group $(D_3 \text{ and } R_4 \text{ are as})$ defined above) or an $A_4-SO_2-R_4$ -group { A_4 is as defined above, and R₄ is as defined above};

 B_4 represents an oxy group, a thio group or a $-N((O)_mR_1)$ -group (R_1 and m are as defined above), provided that when B_4 is a thio group, A_3 is not a hydrogen atom];

2) a $R_1-B_4-CO-R_4-B_4'$ -group (R_1 , B_4 and R_4 are as defined above, B_4' is the same as or different from B_4 , and has the

same meaning as that of B_4 , provided that when B_4 is a thio group, R_2 is not a hydrogen atom) or a $D_2-R_4-B_4$ -group (D_2 , R_4 and B_4 are as defined above);

- 3) a R_2 -SO₂-NR₁-group (R_2 is as defined above, provided that a hydrogen atom is excluded, and R_1 is as defined above),
- 4) a (b)-group ((b) is as defined above);
- 5) a (c)-group ((c) is as defined above); or
- 6) a $R_1A_1N-NR_1'$ -group (R_1 , R_1 and R_1' are as defined above); V. K_a represents a hydrogen atom, a halogen atom or a C1-C10 alkyl group, L_a represents a hydrogen atom, a C1-C10 alkyl group or a M_b -group (M_b is as defined above), or K_a and L_a may form a C1-C10 alkylene group, provided that when K_a is a hydrogen atom, L_a is a methyl group and an A ring is a benzene ring, p is 2, 3 or 4 in the case that q is 0; and

the "as defined above" in the same symbol between a plurality of substituents indicates that the plurality of substituents independently represent the same meaning as that described above and, between the plurality of substituents, a selection range of selected substituents is the same, while the selected substituents may be the same or different as far as they are selected in a range]; and an inert carrier;

5. (Original) A 2H-pyran-2-one compound represented
by the formula (V):

[wherein

I. A represents a benzene ring or a pyridine ring;

II. In $(X_b)_p$, X_b is a substituent on a carbon atom, and represents a halogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom or a C1-C10 alkoxy group, or a nitro group, or a C2-C10 alkoxy group, or a RB-group (R represents a C1-C10 haloalkyl group, and B represents an oxy group or a thio group), p represents 0, 1, 2, 3 or 4 and, when p is 2 or more, X_b 's are the same or different;

III. In $(Y_b)_q$, Y_b is a substituent on a carbon atom, and represents a substituent of the following X_2 group or Y_2 group, q represents 0,1, 2, 3, 4 or 5, when q is 2 or more, Y_b 's are the same or different and, when q is 2 or more, the adjacent two same or different Y_b 's constitutes a group of a Z_2 group, and may be fused with an A ring;

(1) a X_2 group:

a Ma-group [Ma represents a Rb-group (Rb represents a C1-C10 alkyl group optionally substituted with a halogen atom), a halogen atom, a nitro group, a cyano group, a hydroxy group, a $R_c-B_a-R_d$ -group (R_c represents a C1-C10 alkyl group optionally substituted with a halogen atom, Ba represents an oxy group, a thio group, a sulfinyl group or a sulfonyl group, and R_d represents a single bond or a C1-C10 alkylene group), a HOR_d -group (R_d is as defined above), a R_e-CO-R_d-group (R_e represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom, and R_d is as defined above), a R_e -CO-O- R_d -group (R_e and R_d are as defined above), a $R_eO-CO-R_d$ -group (R_e and R_d are as defined above), a HO-CO-CH=CH-group, a $R_eR_e'N-R_d$ -group (R_e and R_e' are the same or different, Re is as defined above, Re' has the same meaning as that of R_e , and R_d is as defined above), a R_e -CO-N R_e '- R_d -group (R_e , R_e ' and R_d are as defined above), a $R_bO-CO-N(R_e)-R_d$ -group (R_b , R_e and R_d are as defined above),

a $R_eR_e'N-CO-R_d$ -group (R_e , R_e' and R_d are as defined above), a $R_eR_e'N$ -CO- NR_d'' - R_d -group (R_e , R_e' and R_e'' are the same or different, R_e has the same meaning as that of $R_e{}^{\prime}$, $R_e{}^{\prime\prime}$ has the same meaning as that of R_e , and R_d is as defined above), a $R_e R_{e'} N - C (= N R_{e''}) - N R_{e''} - R_d - group (R_e, R_{e'}, R_{e''})$ and $R_{e''}$ are the same or different, R_e , R_e' and R_e'' are as defined above, R_e''' has the same meaning as that of R_e , and R_d is as defined above), a R_b -SO₂-NR_e-R_d-group (R_b , R_e and R_d are as defined above), a R_e R_e' $N-SO_2-R_d$ -group (R_e , R_e' and R_d are as defined above), a C2-C10 alkenyl group or a C2-C10 alkynyl group], provided that, when A represents a benzene ring, then, a halogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom or a C1-C10 alkoxy group, or a nitro group, or a C1-C10 alkoxy group, or a RB-group (R and B are as described above) is excluded; (2) a Y_2 group:

a M_b -R_d-group [M_b represents a M_c -group { M_c represents a M_d -R_d'-group { M_d represents a phenyl group optionally substituted with a M_a -group (M_a is as defined above), or a pyridyl group optionally substituted with a M_a -group (M_a is as defined above), or a naphthyl group optionally substituted with a M_a -group (M_a is as defined above) or

(b)
$$G_{3}^{G_{2}-G_{1}}N - G_{5}$$

a (b)-group (in (b), G_1 , G_2 , G_4 and G_5 represent a methylene group which is connected to an adjacent atom with a single bond and may be substituted with a methyl group, or a methine group which is connected to an adjacent atom with a double bond and may be substituted with a methyl group, and G_3 represents a single bond, or a double bond, or a C1-C10 alkylene group optionally substituted with a

methyl group, an oxy group, a thio group, a sulfinyl group, a sulfonyl group, or a $-NR_1$ -group $\{R_1 \text{ represents a hydrogen atom, or a C1-C10 alkyl group, or a C2-C10 alkyl group substituted with a halogen atom or a <math>R_2$ - B_1 -group $\{R_2 \text{ represents a C1-C10 alkyl group, a C3-C10 alkenyl group or a C3-C10 alkynyl group, and <math>B_1$ represents an oxy group, a thio group, a sulfinyl group or a sulfonyl group), or a C3-C10 alkenyl group, or a C3-C10 alkenyl group, or a C3-C10 alkenyl group optionally substituted with a methyl group, an oxy group, a thio group, a sulfinyl group, a sulfonyl group or a NR_1 - group $\{R_1 \text{ is as defined above}\}$,

(c)
$$\int_{3}^{J_2=J_1} N$$
—

a (c)-group (in(c), J_1 , J_2 and J_3 are the same or different, and represent a methine group optionally substituted with a methyl group, or a nitrogen atom),

(d)
$$N \xrightarrow{O} B_b$$

a (d) group (1 is 2, 3 or 4, and B_b represents an oxy group or a thio group) or

(e)
$$B_b \longrightarrow (CH_2)_1$$

an (e)-group (1 and B_b are as defined above), R_d ' is the same as or different from R_d , and has the same meaning as that of R_d }, a M_c - B_a -group (M_c and B_a are as defined above), a M_c -CO-group (M_c is as defined above), a M_c -CO-O-group (M_c is as defined above), a M_c -CO-Group (M_c is as defined above), a M_c - M_c -group (M_c and M_c -are as defined above), a M_c - M_c -group (M_c and M_c -are as defined above), a M_c -

CO-NR_e-group (M_c and R_e are as defined above), a $M_cO-CO-NR_e-$ group (M_c and R_e are as defined above), a M_cR_eN-CO- group (M_c and R_e are as defined above), a $M_cR_eN-CO-NR_e'$ -group (M_c , R_e and R_d' are as defined above), a M_cR_eN-C (= NR_e')- NR_e'' -group (M_c , R_e , R_e' and R_e'' are as defined above), a $M_c-SO_2-NR_e-$ group (M_c and R_e are as defined above) or $M_cR_eN-SO_2-$ group (M_c and R_e are as defined above), and R_d is as defined above]; (3) a Z_2 group:

a $-N=C(Y_a)-Y_a'$ -group (Y_a represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom, or a C1-C10 alkoxy group, and Y_a' represents an oxy group, or a thio group, or an imino group optionally substituted C1-C10 alkyl group), a $-Y_b-Y_b'-Y_b''$ -group (Y_b and Y_b'' are the same or different, and represent a methylene group, or an oxy group, or a thio group, or a sulfinyl group, or an imino group optionally substituted with a C1-C10 alkyl group, and Y_b' represents a C1-C4 alkylene group optionally substituted with a halogen atom, or a C1-C4 alkylene group optionally having an oxo group) or a $-Y_c-O-Y_c'-O$ -group (Y_c and Y_c' are the same or different, and represent a C1-C10 alkylene group);

III. $Q_{\rm A}'$ represents a (b)-group ((b) is as defined above), an $A_9-B_6-B_c$ -group [A_9 represents a substituent of the following A_7 group or A_8 group, B_6 represents a carbonyl group or a thiocarbonyl group, and B_c represents an oxy group or a $-N((O)_mR_1$ -group (m represents 0 or 1, and R_1 is as defined above), provided that when A_9 is a hydrogen atom, then B_c is not a sulfonyl group], an $A_7''-SO_2-B_c$ -group (A_7'' represents a substituent of the following A_7'' group, and B_c is as defined above), an $A_8-SO_2-B_c$ -group (A_8 represents a substituent of the following A_8 group, and A_8 is not a hydrogen atom), a $A_1R_1'N$ -

 SO_2 -B_c-group (R₁ is as defined above, R₁' is the same as or different from R₁, and has the same meaning as that of R₁ and B_c is as defined above), a (b)- SO_2 -B_c-group ((b) and B_c are as defined above), an A₉'-B_c-group (A₉' represents a substituent of the following A₇' group or A₈' group, and B_c is as defined above), a D₅-R₄-B_c-group (D₅ represents a substituent of the following D₅ group, R₄ represents a C1-C10 alkylene group, and B_c is as defined above), a M_c-B₃-B_c-group (B₃ represents a carbonyl group, a thiocarbonyl group or a sulfonyl group, and M_c and B_c are as defined above) or a M_c-B_c-group (M_c and B_c are as defined above);

(1) an A_7 group:

a C2-C10 alkenyl group optionally substituted with a halogen atom, a C2-C10 alkynyl group, a C3-C10 haloalkynyl group, a $R_2-B_1-R_4$ -group (R_2 and B_1 are as defined above, and R_4 is as defined above), a D_4 - R_4 -group (D_4 represents a substituent of the following D₄ group, and R₄ is as defined above), a D_5-R_4 -group (D_5 represents a substituent of the following D_5 group, and R_4 is as defined above), a D_1-R_4 group {D₁ represents a substituent of the following D₁ group, and R_4 is as defined above}, a (b)- R_4 -group ((b) is as defined above, and R_4 is as defined above), a (c)- R_4 group ((c) is as defined above, and R_4 is as defined above), a D₂-R₄-group {D₂ represents a substituent of the following D_2 group, and R_4 is as defined above}, a D_3-R_4 -group { D_3 represents a substituent of the following D₃ group, and R₄ is as defined above}, an $A_4-SO_2-R_4$ -group { A_4 represents a (b)-group ((b) is as defined above), a (c)-group ((c) is as defined above) or a $R_1R_1'N$ -group (R_1 and R_1' are as defined above), and R_4 is as defined above) or an A_2 -CO- R_4 -group (A_2 represents a substituent of the following A_2 group, and R_4 is as defined above);

- (2) an A_8 group: a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom;
- (3) an A_7' group: a C3-C10 alkenyl group optionally substituted with a halogen atom, a C3-C10 alkynyl group optionally substituted with a halogen atom, a C_2 - B_1 - R_4' -group (C_2 and B_1 are as defined above, and R_4' represents a C2-C10 alkylene group), a D_4 - R_4' -group (D_4 and R_4' are as defined above), a D_1 - D_4' -group (D_1 and D_4' are as defined above), a (D_1 - D_4' -group ((D_1) and D_4 are as defined above), a (D_2 - D_4' -group ((D_1) and D_4 are as defined above), a D_2 - D_4 -group (D_1) and D_4 are as defined above), a D_1 - D_2 - D_4 -group (D_2) and D_4 are as defined above), a D_3 - D_4' -group (D_3) and D_4 are as defined above) or an D_4 -C0- D_4 -group (D_4) and D_4 -are as defined above);
- (4) an A_8 -group: a $\dot{C}1$ -C10 alkyl group or a C2-C10 haloalkyl group;
- (5) an A_7 "-group: a C2-C10 alkenyl group, a C3-C10 alkenyl group substituted with a halogen atom, a C3-C10 alkynyl group optionally substituted with a halogen atom, a R_2 - B_1 - R_4 '-group (R_2 , B_1 and R_4 ' are as defined above), a D_4 - R_4 '-group (D_4 and D_4 ' are as defined above), a D_5 - D_4 -group (D_5 and D_4 are as defined above), a D_1 - D_4 '-group (D_1 and D_4 ' are as defined above), a (D_1 - D_4 '-group ((D_1) and D_4 ' are as defined above), a (D_1 - D_4 '-group ((D_1) and D_4 ' are as defined above), a D_2 - D_4 -group (D_4) and D_4 are as defined above), a D_2 - D_4 -group (D_4) and D_4 are as defined above), a D_4 - D_4 -group (D_4) and D_4 -group (D_4 -group (D_4) and D_4 -group (D_4 -group (
- (i) a D₄ group: a hydroxyl group or an A_1 -O-group [A_1 represents a R_3 -(CHR₀)_m-(B_2 - B_3)_m'-group { R_3 represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom or a R_2 - B_1 -group (R_2 and B_1 are as defined above), or a C2-C10 alkenyl group, or a C2-C1 alkynyl group, R_0 represents a hydrogen atom, C1-C10

alkyl group or a C2-C10 haloalkyl group, m is as defined above, B_2 represents a single bond, an oxy group, a thio group or a $-N((O)_nR_1'$ -group $(R_1'$ is as defined above, and n represents 0 or 1), B_3 is as defined above, and m' represents 0 or 1 and, when B_3 is a sulfonyl group, m is 0, and R_3 is not a hydrogen atom}];

- (ii) a D_5 group: $O=C(R_3)$ group $(R_3$ is as defined above), an $A_1-(O)_n-N=C(R_3)$ -group $(A_1$, n and R_3 are as defined above), an $R_1-B_0-CO-R_4-(O)_n-N=C(R_3)$ -group $[R_1$, R_4 , n and R_3 are as defined above, and B_0 represents an oxy group, a thio group or a $-N((O)_mR_1')$ -group $(R_1'$ and m are as defined above)], a $D_2-R_4-(O)_n-N=C(R_3)$ -group $(D_2$, R_4 , n and R_3 are as defined above) or a $R_1A_1N-N=C(R_3)$ group $(R_1$, A_1 and R_3 are as defined above);
- (iii) a D_1 group: a $(R_1-(O)_k-)A_1N-(O)_k'$ -group $(R_1$ and A_1 are as defined above, and k and k' are the same or different, and represent 0 or 1);
- (iv) a D_2 group: a cyano group, a $R_1R_1'NC(=N-(O)_n-A_1$ -group (R_1 , R_1' , n and A_1 are as defined above), an $A_1N=C(-OR_2)$ -group (A_1 and R_2 are as defined above) or a NH_2-CS -group.
- (v) a D_3 group: a nitro group or a R_1OSO_2 -group (R_1 is as defined above);
- (vi) an A₂ group:
- 1) an A_3-B_4 -group

[A₃ represents a hydrogen atom, or a C1-C10 alkyl group, or a C2-C10 haloalkyl group, or a C2-C10 alkenyl group optionally substituted with a halogen atom, or a C3-C10 alkynyl group optionally substituted with a halogen atom, or a R_a -(R_4)_m-group (R_a represents a phenyl group, a pyridyl group, a furyl group or a thienyl group, optionally substituted with a halogen atom, a C1-C10 alkyl group, a C1-C10 alkoxy group or a nitro group, and R_4 and m are as

defined above), or a C1-C10 alkyl group substituted with a $(b)-R_4$ -group ((b) and R_4 are as defined above), a $(c)-R_4$ -group ((c) and R_4 are as defined above), a R_2 - B_1 - R_4 -group (R_2 , R_1 and R_4 are as defined above), a R_4 -group (R_4 -g

 B_4 represents an oxy group, a thio group or a - $N((O)_mR_1)$ -group $(R_1$ and m are as defined above), provided that when B_4 is a thio group, A_3 is not a hydrogen atom]; 2) a R_1 - B_4 -CO- R_4 - B_4 '-group $(R_1$, B_4 and R_4 are as defined above, B_4 ' is the same as or different from B_4 , and has the same meaning as that of B_4 provided that when B_4 is a thio group, R_2 is not a hydrogen atom) or a D_2 - R_4 - B_4 -group $(D_2$, R_4 and B_4 are as defined above);

- 3) a R_2 -SO $_2$ -NR $_1$ -group (R_2 is as defined above provided that a hydrogen atom is excluded, and R_1 is as defined above),
- 4) a (b)-group ((b) is as defined above);
- 5) a (c)-group ((c) is as defined above); or
- 6) a $R_1A_1N-NR_1'$ -group (R_1 , A_1 and R_1' are as defined above); IV. K_a represents a hydrogen atom, a halogen atom or a C1-C10 alkyl group, L_a represents a hydrogen atom, a C1-C10 alkyl group or a M_b -group (M_b is as defined above), or K_a and L_a may form a C1-C10 alkylene group, provided that when an A ring is a benzene ring, p is 2, 3 or 4 in the case that q is 0; and

the "as defined above" in the same symbol between a plurality of substituents indicates that the plurality of substituents independently represent the same meaning as that described above and, between the plurality of

substituents, a selection range of selected substituents is the same, while the selected substituents may be the same or different as far as they are selected in the range];

6. (Original) A 2H-pyran-2-one compound represented
by the formula (VI):

$$(Y_c)_q \xrightarrow{A} \xrightarrow{O} \xrightarrow{O} \xrightarrow{O} K_a$$
 (VI)

[wherein

I. A represents a benzene ring or a pyridine ring; II. In $(X_c)_p$, X_c is a substituent on a carbon atom, and represents a hydroxyl group, or a halogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom or a C1-C10 alkoxy group, or a C2-C10 alkenyl group, or a R'- $S(0)_1$ -group (R' represents a C1-C10 alkyl group, and l represents 0, 1 or 2), or a cyano group, or a C1-C10 alkoxycarbonyl group, or an aminocarbonyl group, or a (R')₂N-group (R' is as defined above), or a R'CO-NH-group (R' is as defined above), or a nitro group, or a C1-C10 alkoxy group, or a RB-group (R represents a C1-C10 haloalkyl group, and B represents an oxy group or a thio group), p represents 0, 1, 2, 3 or 4 and, when p is 2 or more, Xc's are the same or different; III. In $(Y_c)_q$, Y_c is a substituent on a carbon atom, and represents a substituent of the following X3 group or Y3

III. In $(Y_c)_q$, Y_c is a substituent on a carbon atom, and represents a substituent of the following X_3 group or Y_3 group, q represents 0, 1, 2, 3, 4 or 5, when q is 2 or more, Y_c 's are the same or different and, when q is 2 or more, the adjacent two same or different Y_c 's constitute a group of a Z_3 group, and may be fused with an A ring;

(1) a X_3 group:

a Ma-group [Ma represents a Rb-group (Rb represents a C1-C10 alkyl group substituted with a halogen atom), a halogen atom, a nitro group, a cyano group, a hydroxy group, a $R_c-B_a-R_d$ -group (R_c represents a C1-C10 alkyl group optionally substituted with a halogen atom, Ba represents an oxy group, a thio group, a sulfinyl group or a sulfonyl group, and R_d represents a single bond or a C1-C10 alkylene group), a HOR_d -group (R_d is as defined above), a R_e -CO- R_d group (Re represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom, and R_d is as defined above), a R_e -CO-O- R_d -group (R_e and R_d are as defined above), a $R_eO-CO-R_d$ -group (R_e and R_d are as defined above), a HO-CO-CH=CH-group, a $R_eR_e'N-R_d-group$ (R_e and R_e' are the same or different, Re is as defined above, Re' has the same meaning as that of R_e , and R_d is as defined above), a R_e-CO-NR_e'-R_d-group (R_e, R_e' and R_d are as defined above), a $R_bO-CO-N(R_e)-R_d$ -group (R_b , R_e and R_d are as defined above), a $R_eR_e'N-CO-R_d$ -group (R_e , R_e' and R_d are as defined above), a $R_eR_e'N-CO-NR_e''-R_d$ -group (R_e , R_e' and R_e'' are the same or different, R_e and $R_{e'}$ are as defined above, $R_{e''}$ has the same meaning as that of R_e , and R_d is as defined above), a $R_eR_e'N C(=NR_e'')-NR_e'''-R_d-group$ (R_e, R_e', R_e" and R_e''' are the same or different, R_e , R_e' and R_e'' are as defined above, R_e''' has the same meaning as that of R_e , and R_d is as defined above), a $R_b-SO_2-NR_e-R_d$ -group (R_b , R_e and R_d are as defined above), a $R_eR_e'N-SO_2-R_d$ -group (R_e , R_e' and R_d are as defined above), a C2-C10 alkenyl group or a C2-C10 alkynyl group], provided that when A represents a benzene ring, then a hydroxy group, or a halogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom or a C1-C10 alkoxy group, or a C2-C10 alkenyl group, or a $R'-S(0)_1$ -group (R' represents a C1-C10 alkyl group, and 1 represents 0, 1 or 2), or a cyano group, or a C1-C10 alkoxycarbonyl group, or an aminocarbonyl group, or a $(R')_2N$ -group (R' is as defined above), or a R'CO-NH-group (R' is as defined above), or a nitro group or a C1-C10 alkoxy group is excluded;

(2) a Y_3 group:

a M_b -R_d-group [M_b represents a M_c -group { M_c represents a M_d -R_d'-group { M_d represents a phenyl group optionally substituted with a M_a -group (M_a is as defined above), or a pyridyl group optionally substituted with a M_a -group (M_a is as defined above), or a naphthyl group optionally substituted with a M_a -group (M_a is as defined above), or

(b)
$$G_3$$
 N — G_4-G_5

a (b)-group {in (b), G_1 , G_2 , G_4 and G_5 represent a methylene group which is connected to an adjacent atom with a single bond, and may be substituted with a methyl group, or a methine group which is connected to an adjacent atom with a double bond, and may be substituted with a methyl group, and G_3 represents a single bond, or a double bond, or a C1-C10 alkylene group optionally substituted with a methyl group, an oxy group, a thio group, a sulfinyl group, a sulfonyl group or a $-NR_1$ -group { R_1 represents a hydrogen atom, or a C1-C10 alkyl group, or a C2-C10 alkyl group substituted with a halogen atom or a R_2 - R_1 -group (R_2 represents a C1-C10 alkyl group, a C3-C10 alkenyl group or a C3-C10 alkenyl group, a sulfinyl group or a sulfonyl group) or a C3-C10 alkenyl group, or a C3-C10 alkenyl group, or a C2-C10

alkenylene group optionally substituted with a methyl group, an oxy group, a thio group, a sulfinyl group, a sulfonyl group or a $-NR_1$ -group (R_1 is as defined above)},

(c)
$$\int_{3}^{J_2=J_1} N$$
—

a (c)-group (in (c), J_1 , J_2 and J_3 are the same or different, and represent a methine group optionally substituted with a methyl group, or a nitrogen atom),

(d)
$$N \longrightarrow B_b$$

a (d)-group (1 is 2, 3 or 4, and B_{b} represents an oxy group or a thio group) or

(e)
$$B_b \longrightarrow B_b$$

an (e)-group (1 and B_b are as defined above), R_d ' is the same as or different from R_d , and has the same meaning as that of R_d }, a M_c - B_a -group (M_c and B_a are as defined above), a M_c -CO-group (M_c is as defined above), a M_c -CO-0-group (M_c is as defined above), a M_c 0-CO-group (M_c is as defined above), a M_c 0-CO-group (M_c is as defined above), a M_c 0-00-00-01-group (00-01-group (00-01-group (00-01-group (00-01-group (00-01-group (00-01-group (00-01-group (00-group (00-

 R_{e} are as defined above), and R_{d} is as defined above], provided that when P is 0, then a morpholino group, or a phenyl group, or a phenoxy group substituted with a trifluoromethyl group, or a phenoxy group substituted with single or plural halogen atoms is excluded;

(3) a \mathbb{Z}_3 group:

a $-N=C(Y_a)-Y_a'$ -group (Y_a represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom, or a C1-C10 alkoxy group, and Ya' represents an oxy group, or a thio group, or an imino group optionally substituted with a C1-C10 alkyl group), a $-Y_b-Y_b'-Y_b''$ -group $(Y_b$ and Y_b " are the same or different, and represent a methylene group, or an oxy group, or a thio group, or a sulfinyl group, or an imino group optionally substituted with a C1-C10 alkyl group, and Y_b ' represents a C1-C4 alkylene group optionally substituted with a halogen atom, or a C1-C4 alkylene group optionally having an oxo group) or a $-Y_c-O-Y_c'-O$ -group (Y_c and Y_c' are the same or different, and represent a C1-C10 alkylene group), provided that when p is 0, then Yc is not fused with an A ring to form a benzo[1,3]dioxol ring;

IV. K_a represents a hydrogen atom, a halogen atom or a C1-C10 alkyl group, L_a represents a hydrogen atom, a C1-C10 alkyl group or a M_b -group (M_b is as defined above), or K_a and L_a may form a C1-C10 alkylene group, provided that when an A ring is a benzene ring, then q is not 0 and, when an A ring is a benzene ring or a pyridine ring, then p and q are not 0 at the same time, in either case; and

the "as defined above" in the same symbol between a plurality of substituents indicates that the plurality of substituents independently represent the same meaning as that described above, and between the plurality of

substituents, a selection range of selected substituents is the same, while the selected range may be the same or different as far as they are selected in the range];

7. (Original) A I type collagen gene transcription suppressing composition, which comprises a 2H-pyran-2-one compound represented by the formula (VII):

$$(X_l)^{k}$$
 O
 O
 CH^3
 $(Al)^{k}$
 $(Al)^{k}$
 $(Al)^{k}$
 $(Al)^{k}$
 $(Al)^{k}$
 $(Al)^{k}$
 $(Al)^{k}$
 $(Al)^{k}$
 $(Al)^{k}$

[wherein X_I represents a C2-C4 alkenyl group, a C2-C4 alkynyl group, a R_I -S(O)₁-group (R_I represents a C1-C4 alkyl group, and 1 represents an integer of 0 to 2), a cyano group, a carboxy group, a C1-C4 alkoxycarbonyl group, a $(R_I)_2N$ -group $(R_I$ is as defined above), a R_I -CO-NH-group $(R_I)_2N$ -group $(R_I)_$ is as defined above), a $R_{I}O-CO-NH$ -group (R_{I} is as defined above), a R_INH-CO-NH-group (R_I is as defined above) or a $(R_{\rm I}')_2$ N-CO-group $(R_{\rm I}'$ represents a hydrogen atom or a C1-C4 alkyl group), X₁' represents a halogen atom, or a C1-C4 alkyl group optionally substituted with a halogen atom or a C1-C4 alkoxy group, or a nitro group, or a C1-C4 alkoxy group, or a RB -group (B represents an oxygen atom or a sulfur atom, and R represents a C1-C4 alkyl group substituted with a halogen atom), k represents 0 or 1, k' represents an integer of 0 to 4, when k is 0, k' is an integer of 2 to 4 and, when k' is 2 to 4, X_{I}' 's may be different, and r_I is a C1-C4 alkyl group, a C2-C4 alkenyl group or a C2-C4 alkynyl group], and a inert carrier;

8. (Original) A 2H-pyran-2-one compound represented by the formula (VIII):

$$(X_{l})_{K'} \xrightarrow{I} O O CH_{3}$$
 (VIII)

[wherein X_I represents a C2-C4 alkenyl group, a C2-C4 alkynyl group, a R_I -S(0)₁-group (R_I represents a C1-C4 alkyl group, and 1 represents an integer of 0 to 2), a cyano group, a carboxy group, a C1-C4 alkoxycarbonyl group, a $(R_I)_2N$ -group $(R_I$ is as defined above), a R_I -CO-NH-group $(R_I)_2N$ -group $(R_I)_$ is as defined above), a $R_{I}O-CO-NH$ -group (R_{I} is as defined above), a R_INH-CO-NH-group (R_I is as defined above) or $(R_{\rm I}')_2N$ -CO-group $(R_{\rm I}'$ represents a hydrogen atom or a C1-C4 alkyl group), X_I" represents a halogen atom, or a C1-C4 alkyl group optionally substituted with a halogen atom or a C1-C4 alkoxy group, or a nitro group, or a C2-C4 alkoxy group, or a RB-group (B represents an oxygen atom or a sulfur atom, and R represents a C1-C4 alkyl group substituted with a halogen atom), k represents 0 or 1, k' represents an integer of 0 to 4, when k is 0, k' is an integer of 2 to 4 and, when k' is 2 to 4, X_{I}'' 's may be different, and r_I is a C1-C4 alkyl group, a C2-C4 alkenyl group or a C2-C4 alkynyl group];

9. (Original) A 2H-pyran-2-one compound represented by the formula (IX):

$$(X_{l}")_{K}$$
 $(X_{l}")_{K}$
 O
 O
 CH_{3}

[wherein $X_I^{\prime\prime\prime}$ represents a C2-C4 alkenyl group, a C2-C4 alkynyl group, a carboxy group, a C2-C4 alkoxycarbonyl group or a $(R_{II})_2N$ -group $(R_{II}$ represents a C2-C4 alkyl group), $X_I^{\prime\prime\prime}$ represents a halogen atom, or a C1-C4 alkyl group optionally substituted with a halogen atom or a C1-C4 alkoxy group, or a nitro group, or a C2-C4 alkoxy group, or a RB-group (B represents an oxygen atom or a sulfur atom, and R represents a C1-C4 alkyl group substituted with a halogen atom), k represents 0 or 1, k $^{\prime\prime\prime}$ represents an integer of 0 to 2, when k is 0, k $^{\prime\prime\prime}$ is 2 and, when k $^{\prime\prime\prime}$ is 2, $X^{\prime\prime\prime\prime}$'s are differentl;

10. (Original) A I type collagen gene transcription suppressing composition, which comprises a 2H-1-benzopyran-2-one compound represented by the formula (X):

$$(Y_d)_q$$
 $(X_d)_p$
 A
 (X)

[wherein

I. A represents a benzene ring or a pyridine ring; II. In $(X_d)_p$, X_d is a substituent on a carbon atom, and represents a methoxy group or an ethoxy group, p represents 0, 1, 2, 3 or 4 and, when p is 2 or more, X_d 's are the same or different;

III. In $(Y_d)_q$, Y_d is a substituent on a carbon atom, and represents a substituent of the following X_4 group or Y_4 group, q represents 0, 1, 2, 3, 4 or 5, when q is 2 or more, Y_d 's are the same or different and, q is 2 or more,

the adjacent two same or different Y_d 's constitute a group of a Z_4 group, and may be fused with an A ring; (1) a X_4 group:

a Ma-group [Ma represents a Rb-group (Rb represents a C1-C10 alkyl group optionally substituted with a halogen atom), a halogen, atom, a nitro group, a cyano group, a hydroxyl group, a $R_c-B_a-R_d$ -group (R_c represents a C1-C10 alkyl group optionally substituted with a halogen atom, Ba represents an oxy group, a thio group, a sulfinyl group or a sulfonyl group, and R_d represents a single bond or a C1-C10 alkylene group), a HORd-group (Rd is as defined above), a R_e -CO- R_d -group (R_e represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom, and R_d is as defined above), a R_e -CO-O- R_d -group (R_e and R_d are as defined above), a $R_eO-CO-R_d$ -group (R_e and R_d are as defined above), a HO-CO-CH=CH-group, a $R_eR_e'N-R_d$ -group (R_e and R_e' are the same or different, R_e is as defined above, $R_e{'}$ has the same meaning as that of R_e , and R_d is as defined above), a R_e -CO-N R_e '- R_d -group (R_e , R_e ' and R_d are as defined above), a $R_bO-CO-N(R_e)-R_d$ -group (R_b , R_e and R_d are as defined above), a $R_eR_e'N-CO-R_d$ -group (R_e , R_e' and R_d are as defined above), a $R_eR_e'N-CO-NR_e''-R_d$ -group (R_e , R_e' and R_e'' are the same or different, R_e and $R_e{'}$ are as defined above, $R_e{''}$ has the same meaning as that of R_{e} , and R_{d} is as defined above), a $R_{e}R_{e}{}^{\prime}N C(=NR_e")-NR_e"'-R_d$ -group (R_e, R_e', R_e" and R_e"' are the same or different, R_e , $R_e{'}$ and $R_e{''}$ are as defined above, $R_e{'}{''}{'}$ has the same meaning as that of R_{e} , and R_{d} is as defined above), a $R_b-SO_2-NR_e-R_d$ -group (R_b , R_e and R_d are as defined above), a $R_eR_e'N-SO_2-R_d$ -group (R_e , R_e' and R_d are as defined above), a C2-C10 alkenyl group or a C2-C10 alkynyl group], provided that when A represents a benzene ring, then a methoxy group and an ethoxy group are excluded;

(2) a Y_4 group:

a M_b - R_d -group [M_b represents a M_c -group { M_c represents a M_d - R_d '-group { M_d represents a phenyl group optionally substituted with a M_a -group (M_a is as defined above), or a pyridyl group optionally substituted with a M_a -group (M_a is as defined above), or a naphthyl group optionally substituted with a M_a -group (M_a is as defined above), or

(b)
$$G_3^{G_2-G_1} N - G_5$$

a (b)-group {in (b), G_1 , G_2 , G_4 and G_5 represent a methylene group which is connected to an adjacent atom with a single bond, and may be substituted with a methyl group, or a methine group which is connected to an adjacent atom with a double bond, and may be substituted with a methyl group, and G₃ represents a single bond, or a double bond, or a C1-C10 alkylene group optionally substituted with a methyl group, an oxy group, a thio group, a sulfinyl group, a sulfonyl group or a $-NR_1$ -group $\{R_1 \text{ represents a hydrogen}\}$ atom, or a C1-C10 alkyl group, or a C2-C10 alkyl group optionally substituted with a halogen atom or a R2-B1-group $(R_2 \text{ represents a C1-C10 alkyl group, a C3-C10 alkenyl group})$ or C3-C10 alkynyl group, and B_1 represents an oxy group, a thio group, a sulfinyl group or a sulfonyl group), or a C3-C10 alkenyl group, or a C3-C10 alkynyl group} or a C2-C10 alkenylene group optionally substituted with a methyl group, an oxy group, a thio group, a sulfinyl group, a sulfonyl group or a $-NR_1$ -group (R_1 is as defined above)},

(c)
$$J_{3} > N$$

a (c)-group (in (c), J_1 , J_2 and J_3 are the same or different, and represent a methine group optionally substituted with a methyl group, or a nitrogen atom),

(d)
$$N \xrightarrow{D} B_b$$

a (d)-group (l is 2, 3 or 4, and $B_{\mbox{\scriptsize b}}$ represents an oxy group or a thio group)

or

(e)
$$B_b \longrightarrow B_b$$

a $-N=C(Y_a)-Y_a'$ -group (Y_a represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom, or a C1-C10 alkoxy group, and Y_a' represents an oxy group, or a thio group, or an imino group optionally substituted with a C1-C10 alkyl group), a $-Y_b-Y_b'-Y_b''$ -group

 $(Y_b \text{ and } Y_b'' \text{ are the same or different, a methylene group, or an oxy group, or a thio group, or a sulfinyl group, or an imino group optionally substituted with a C1-C10 alkyl group, and <math>Y_b'$ represents a C1-C4 alkylene group optionally substituted with a halogen atom, or a C1-C4 alkylene group optionally having an oxo group) or a $-Y_c-O-Y_c'-O$ -group $(Y_c$ and Y_c' are the same or different, and represent a C1-C10 alkylene group);

IV. Q_A represents a hydroxyl group, a (b) group ((b) is as defined above), an A₉-B₆-B_c-group [A₉ represents a substituent of the following A_7 group or A_8 group, B_6 represents a carbonyl group or a thiocarbonyl group, and Bc represents an oxy group or a $-N((0)_mR_1)$ -group (m represents 0 or 1, and R_1 is as defined above), provided that when A_9 is a hydrogen atom, then B_c is not a sulfonyl group], an $A_7''-SO_2-B_c$ -group (A_7'' represents a substituent of the following A_7'' group, and B_c is as defined above), an A_8-SO_2- B_c-group (A₈ represents a substituent of the following A₈ group, and Bc is as defined above, provided that A8 is not a hydrogen atom), a $R_1R_1'N-SO_2-B_c$ -group (R_1 is as defined above, R_1' is the same as or different from R_1 , and has the same meaning as that of R_1 , and B_c is as defined above), a (b) $-SO_2-B_c$ -group ((b) and B_c are as defined above), an A_9' - B_c -group (A_9 ' represents a substituent of the following A_7 ' group or A_8 ' group, and B_c is as defined above), a $D_5-R_4-B_c$ group (D_5 represents a substituent of the following D_5 group, R_4 represents a C1-C10 alkylene group, and B_c is as defined above), a $M_c-B_3-B_c$ -group (B_3 represents a carbonyl group, a thiocarbonyl group or a sulfonyl group, and M_c and B_c are as defined above) or a $M_c - B_c - group$ (M_c and B_c are as defined above);

(1) an A₇ group:

a C2-C10 alkenyl group optionally substituted with a halogen atom, a C2-C10 alkynyl group, a C3-C10 haloalkynyl group, a $R_2-B_1-R_4$ -group (R_2 and B_1 are as defined above, and R_4 is as defined above), a D_4-R_4 -group (D_4 represents a substituent of the following D_4 group, and R_4 is as defined above), a D_5-R_4 -group (D_5 represents a substituent of the following D_5 group, and R_4 is as defined above), a D_1-R_4 group $\{D_1 \text{ represents a substituent of the following } D_1$ group, and R_4 is as defined above), a (b)- R_4 -group ((b) is as defined above, and R_4 is as defined above), a (c)- R_4 group ((c) is as defined above, and R_4 is as defined above), a D_2-R_4 -group { D_2 represents a substituent of the following D_2 group, and R_4 is as defined above}, a D_3 - R_4 -group { D_3 represents a substituent of the following D₃ group, and R₄ is as defined above), an $A_4-SO_2-R_4$ -group { A_4 represents a (b)-group ((b) is as defined above), a (c)-group ((c) is as defined above) or a $R_1R_1'N$ -group (R_1 and R_1' are as defined above), and R_4 is as defined above) or an A_2 -CO- R_4 -group (A_2 represents a substituent of the following A2 group, and R4 is as defined above);

..

- (2) an A_8 group: a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom;
- (3) an A_7 ' group: a C3-C10 alkenyl group optionally substituted with a halogen atom, a C3-C10 alkynyl group optionally substituted with a halogen atom, a R_2 - B_1 - R_4 '-group (R_2 and B_1 are as define above, and R_4 ' represents a C2-C4 alkylene group), a D_4 - R_4 '-group (D_4 and R_4 ' are as defined above), a D_1 - R_4 '-group (D_1 and D_4 ' are as defined above), a (b)- D_4 '-group ((b) and D_4 ' are as defined above), a (c)- D_4 '-group ((c) and D_4 ' are as defined above), a D_4 - D_4 '-group (D_4 and D_4 ' are as defined above), a D_4 - D_4 '-group (D_4 and D_4 ' are as defined above), a D_4 - D_4 '-group (D_4 and D_4 ' are as defined above), a D_4 - D_4 '-group (D_4 and D_4 ' are as defined above), a D_4 - D_4 '-group (D_4) and D_4 ' are as defined above), a D_4 - D_4 '-group (D_4) and D_4 '-group (D_4

- and R_4 ' are as defined above) or an A_2 -CO- R_4 -group (A_2 and R_4 are as defined above);
- (4) an A_8 ' group: a C1-C10 alkyl group or a C2-C10 haloalkyl group;
- (5) an A_7'' group: a C2-C10 alkenyl group, a C3-C10 alkenyl group substituted with a halogen atom, a C3-C10 alkynyl group optionally substituted with a halogen atom, a R_2 - B_1 - R_4' -group (R_2 , B_1 and R_4' are as defined above), a D_4 - R_4' -group (D_4 and D_4' are as defined above), a D_5 - D_4 -group (D_5 and D_4 are as defined above), a D_1 - D_4 -group (D_1 and D_4 are as defined above), a (D_1 - D_4 -group ((D_1) and D_4 are as defined above), a (D_1 - D_4 -group ((D_1) and D_4 -are as defined above), a (D_2 - D_4 -group (D_4) and D_4 -group (D_4) are as defined above), a D_2 - D_4 -group (D_4) and D_4 -group (D_4) and D_4 -group (D_4) are as defined above), a D_4 - D_4 -group (D_4) and D_4 -group (D_4 -group (D_4) and D_4 -group (D_4 -group (
- (i) a D_4 group: a hydroxy group or an A_1 -O-group $[A_1]$ represents a R_3 -(CHR₀)_m-(B_2 - B_3)_m'-group $\{R_3\}$ represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom or a R_2 - B_1 -group (R_2 and B_1 are as defined above), or a C2-C10 alkenyl group, or C2-C10 alkynyl group, R_0 represents a hydrogen atom, a C1-C10 alkyl group or a C2-C10 haloalkyl group, m is as defined above, B_2 represents a single bond, an oxy group, a thio group or a $N((O)_mR_1')$ -group (R_1' is as defined above, and n represents 0 or 1), B_3 is as defined above, m' represents 0 or 1 and, when B_3 is a sulfonyl group, then m is 0, and R_3 is not a hydrogen atom}];
- (ii) a D_5 group: an $O=C(R_3)$ -group $(R_3$ is as defined above), an $A_1-(O)_n-N=C(R_3)$ -group $(A_1$, n and R_3 are as defined above), a $R_1-B_0-CO-R_4-(O)_n-N=C(R_3)$ -group $[R_1$, R_4 , n and R_3 are as defined above, and B_0 represents an oxy group, a thio group or a $-N((O)_mR_1')$ -group $(R_1'$ and m are as defined above)], a

 $D_2-R_4-(O)_n-N=C(R_3)$ -group (D_2 , R_4 , n and R_3 are as defined above) or a $R_1A_1N-N=C(R_3)$ -group (R_1 , A_1 and R_3 are as defined above);

- (iii) a D_1 group: a $(R_1-(0)_k-)A_1N-(0)_k'$ -group $(R_1$ and A_1 are as defined above, and k and k' are the same or different, and represent 0 or 1);
- (iv) a D_2 group: a cyano group, a $R_1R_1'NC(=N-(0)_n-A_1)$ -group $(R_1, R_1', n \text{ and } A_1 \text{ are as defined above})$, an $A_1N=C(-OR_2)$ -group $(A_1 \text{ and } R_2 \text{ are as defined above})$ or a NH_2 -CS-group; (v) a D_3 group: a nitro group or a R_1OSO_2 -group $(R_1 \text{ is as defined above})$;
- (vi) an A₂ group:
- 1) an A_3-B_4 -group

[A₃ represents a hydrogen atom, or a C1-C10 alkyl group, or a C2-C10 haloalkyl group, or a C2-C10 alkenyl group optionally substituted with a halogen atom, or a C3-C10 alkynyl group optionally substituted with a halogen atom, or a R_a - $(R_4)_m$ -group (R_a represents a phenyl group, a pyridinyl group, a furyl group or a thienyl group, optionally substituted with a halogen atom, a C1-C10 alkyl group, a C1-C10 alkoxy group or a nitro group, and R₄ and m are as defined above), or a C1-C10 alkyl group substituted with a $(b)-R_4$ -group ((b) and R_4 are as defined above), a (c)- R_4 -group ((c) and R_4 are as defined above), a R_2 - B_1 - R_4 group $(R_2, B_1 \text{ and } R_4 \text{ are as defined above})$, a D_4-R_4 -group (D_4) and R_4 are as defined above), a D_5 -group (D_5 is as defined above), a D_1-R_4 -group (D_1 and R_4 are as defined above), a D_2 group (D_2 is as defined above), a D_3-R_4 -group (D_3 and R_4 are as defined above) or an $A_4-SO_2-R_4$ -group $\{A_4 \text{ is as defined }\}$ above, and R_4 is as defined above},

 B_4 represents an oxy group, a thio group or a - $N((0)_mR_1)$ -group $(R_1$ and m are as defined above), provided

that when B_4 is a thio group, then A_3 is not a hydrogen atom];

- 2) a R_1 - B_4 -CO- R_4 - B_4 '-group (R_1 , B_4 and R_4 are as defined above, B_4 ' is the same as or different from B_4 , and has the same meaning as that of B_4 , provided that when B_4 is a thio group, then R_2 is not a hydrogen atom) or a D_2 - R_4 - B_4 -group (D_2 , R_4 and B_4 are as defined above);
- 3) a R_2 - SO_2 - NR_1 -group (R_2 is as defined above, provided that a hydrogen atom is excluded, and R_1 is as defined above),
- 4) a (b)-group ((b) is as defined above);
- 5) a (c)-group ((c) is as defined above) or
- 6) a $R_1A_1N-NR_1'$ -group (R_1 , A_1 and R_1' are as defined above); V. M_a' is the same as or different from M_a , and has the same meaning as that of M_a , and r represents 0, 1, 2, 3 or 4, provided that when an A ring is a benzene ring, in case that q and r are 0, then p is 2, 2, 3 or 4; and

the "as defined above" in the same symbol between a plurality of substituent indicates that the plurality of the substituents independently represent the same meaning as that of described above and, between the plurality of substituents, a selection range of the selected substituents is the same, while the selected substituents may be the same or different as far as they are selected in the range];

and an inert carrier;

11. (Original) A 2H-1-benzopyran-2-one compound represented by the formula (XI):

$$(X_d)_p$$
 A O Q_A' (XI)

[wherein

- I. A represents a benzene ring or a pyridine ring; II. In $(X_d)_p$, X_d is a substituent on a carbon atom, and represents a methoxy group or an ethoxy group, p represents 0, 1, 2, 3 or 4 and, when p is 2 or more, X_d 's are the same or different;
- III. In $(Y_d)_q$, Y_d is a substituent on a carbon atom, and represents a substituent of the following X_4 group or Y_4 group, q represents 0, 1, 2, 3, 4 or 5, when q is 2 or more, Y_d 's are the same or different and, when q is 2 or more, the adjacent two same or different Y_d 's constitute a group of a Z_4 group, and may be fused with an A ring; (1) a X_4 group:
- a M_a -group [M_a represents a R_b -group (R_b represents a C1-C10 alkyl group optionally substituted with a halogen atom), a halogen atom, a nitro group, a cyano group, a hydroxy group, a R_c-B_a-R_d-group (R_c represents a C1-C10 alkyl group optionally substituted with a halogen atom, Ba represents an oxy group, a thio group, a sulfinyl group or a sulfonyl group, and R_d represents a single bond or a C1-C10 alkylene group), a HOR_d -group (R_d is as defined above), a R_e -CO- R_d group (Re represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom, and R_d is as defined above), a $R_{\text{e}}\text{-CO-O-}R_{\text{d}}\text{-group}$ (R_{e} and R_{d} are as defined above), a $R_eO-CO-R_d$ -group (R_e and R_d are as defined above), a HO-CO-CH=CH-group, a $R_eR_e'N-R_d$ -group (R_e and R_e' are the same or different, Re is as defined above, Re' has the same meaning as that of R_e , and R_d is as defined above), a R_e -CO-N R_e '- R_d -group (R_e , R_e ' and R_d are as defined above), a $R_bO-CO-N(R_e)-R_d$ -group (R_b , R_e and R_d are as defined above), a $R_eR_e'N-CO-R_d$ -group (R_e , R_e' and R_d are as defined above), a

 $R_eR_e'N$ -CO- NR_e'' - R_d -group (R_e , R_e' and R_e'' are the same or different, R_e and R_e' are as defined above, R_e'' has the same meaning as that of R_e , and R_d is as defined above), a $R_eR_e'N$ - $C(=NR_e'')$ - NR_e''' - R_d -group (R_e , R_e' , R_e'' and R_e'''' are the same or different, R_e , R_e' and R_e''' are as defined above, R_e'''' has the same meaning as that of R_e , and R_d is as defined above), a R_b - SO_2 - NR_e - R_d -group (R_b , R_e and R_d are as defined above), a $R_eR_e'N$ - SO_2 - R_d -group (R_e , R_e' and R_d are as defined above), a C2-C10 alkenyl group or a C2-C10 alkenyl group or a heavy group and an ethoxy group are excluded;

(2) Y₄ group:

a M_b - R_d -group [M_b represents a M_c -group { M_c represents a M_d - R_d '-group { M_d represents a phenyl group optionally substituted with a M_a -group (M_a is as defined above), a pyridyl group optionally substituted with a M_a -group (M_a is as defined above), or a naphthyl group optionally substituted with a M_a -group (M_a is as defined above), or

(b)
$$G_{3}^{G_{2}-G_{1}}N - G_{5}$$

a (b)-group {in (b), G_1 , G_2 , G_4 and G_5 represent a methylene group which is connected to an adjacent atom with a single bond, and may be substituted with a methyl group, or a methine group which is connected to an adjacent atom with a double bond, and may be substituted with a methyl group, and G_3 represents a single bond, or a double bond, or a C1-C10 alkylene group optionally substituted with a methyl group, an oxy group, a thio group, a sulfinyl group, a sulfonyl group or a $-NR_1$ -group { R_1 represents a hydrogen atom, or a C1-C10 alkyl group, or a C2-C10 alkyl group substituted with a halogen atom or a R_2 - R_1 -group (R_2

represents a C1-C10 alkyl group, a C3-C10 alkenyl group or a C3-C10 alkynyl group, and B_1 represents an oxy group, a thio group, sulfinyl group or a sulfonyl group), or a C3-C10 alkenyl group, or a C3-C10 alkynyl group}, or a C2-C10 alkenylene group optionally substituted with a methyl group, an oxy group, a thio group, a sulfinyl group, a sulfonyl group or a $-NR_1$ -group (R_1 is as defined above)},

(c)
$$\int_{3}^{J_2=J_1} N$$
—

a (c)-group (in (c), J_1 , J_2 , and J_3 are the same or different and, represent a methine group optionally substituted with a methyl group, or a nitrogen atom),

(d)
$$N \rightarrow B_b$$

a (d)-group (1 is 2, 3 or 4, and B_b represents an oxy group or a thio group) or

(e)
$$B_b \longrightarrow (CH_2)$$

and R_e' are as defined above), a M_cR_eN-C (= NR_e')- NR_e'' -group (M_c , R_e , R_e' and R_e'' are as defined above), a $M_c-SO_2-NR_e$ -group (M_c and R_e are as defined above) or a $M_cR_eN-SO_2$ -group (M_c and R_e are as defined above), and R_d is as defined above]; (3) a Z_4 group:

a $-N=C(Y_a)-Y_a'$ -group (Y_a represents a hydrogen atom, or C1-C10 alkyl group optionally substituted with a halogen atom, or a C1-C10 alkoxy group, and Y_a' represents an oxy group, or a thio group, or an imino group optionally substituted with a C1-C10 alkyl group), a $-Y_b-Y_b'-Y_b''$ -group (Y_b and Y_b'' are the same or different, and represent a methylene group, or an oxy group, or a thio group, or a sulfinyl group, or an imino group optionally substituted with a C1-C10 alkyl group, Y_b' represents a C1-C4 alkylene group optionally substituted with a halogen atom, or a C1-C4 alkylene group optionally having an oxo group) or a $-Y_c-O-Y_c'-O$ -group (Y_c and Y_c' are the same or different, and a C1-C10 alkylene group);

IV. $Q_{\rm A}'$ represents a (b)-group ((b) is as defined above), an A_9-B_6-BC -group [A_9 represents a substituent of the following A_7 group or A_8 group, B_6 represents a carbonyl group or a thiocarbonyl group, B_c represents an oxy group or a - $N((O)_mR_1)$ -group (m represents 0 or 1, and R_1 is as defined above), provided that when A_9 is a hydrogen atom, then B_c is not a sulfonyl group], an $A_7''-SO_2-B_c$ -group (A_7'' represents a substituent of the following A_7'' group, and B_c is as defined above), an $A_8-SO_2-B_c$ -group (A_8 represents a substituent of the following A_8 group, and A_8 is not a hydrogen atom), a $A_1R_1'N-SO_2-B_c$ -group (A_1 is as defined above, A_1' is the same as or different from A_1 , and A_1'' and A_2'' is the same as or different from A_1' and A_2'' is the same as or defined above), a A_1'' is the same as or defined above), a A_1'' is the same as or defined above), a A_1'' is as defined above), a A_2'' is as defined above), a A_1'' is as defined above), a A_2'' is as defined above), a A_1'' is as defined above).

above), an $A_9'-B_c$ -group (A_9' represents a substituent of the following A_7' group or A_8' group, and B_c is as defined above), a $D_5-R_4-B_c$ -group (D_5 represents a substituent of the following D_5 group, R_4 represents a C1-C10 alkylene group, and B_c is as defined above), a $M_c-B_3-B_c$ -group (B_3 represents a carbonyl group, a thiocarbonyl group or a sulfonyl group, and M_c and B_c are as defined above) or a M_c-B_c -group (M_c and M_c are as defined above);

(1) an A_7 group:

a C2-C10 alkenyl group optionally substituted with a halogen atom, a C2-C10 alkynyl group, a C3-C10 haloalkynyl group, a $R_2-B_1-R_4$ -group (R_2 and B_1 are as defined above, and R_4 is as defined above), a D_4 - R_4 -group (D_4 represents a substituent of the following D₄ group, and R₄ is as defined above), a D_5-R_4 -group (D_5 represents a substituent of the following D_5 group, and R_4 is as defined above), a D_1-R_4 group $\{D_1 \text{ represents a substituent of the following } D_1$ group, and R_4 is as defined above}, a (b)- R_4 -group ((b) is as defined above, and R_4 is as defined above), a (c)- R_4 group ((c) is as defined above, and R_4 is as defined above), a D₂-R₄-group {D₂ represents a substituent of the following D_2 group, and R_4 is as defined above), a D_3-R_4 -group { D_3 represents a substituent of the following D₃ group, and R₄ is as defined above}, an $A_4-SO_2-R_4$ -group { A_4 represents a (b)-group ((b) is as defined above), a (c)-group ((c) is as defined above) or a $R_1R_1'N$ -group (R_1 and R_1' are as defined above), and R_4 is as defined above) or an A_2 -CO- R_4 -group (A_2 represents a substituent of the following A₂ group, and R₄ is as defined above);

(2) an A_8 group: a hydrogen atom, or C1-C10 alkyl group optionally substituted with a halogen atom;

- (3) an A_7' group: a C3-C10 alkenyl group optionally substituted with a halogen atom, a C3-C10 alkynyl group optionally substituted with a halogen atom, a R_2 - B_1 - R_4' -group (R_2 and B_1 are as defined above, and R_4' represents a C2-C10 alkylene group), a D_4 - R_4' group (D_4 and R_4' are as defined above), a D_1 - D_4' -group (D_1 and D_4' are as defined above), a (b)- D_4' -group ((b) and D_4' are as defined above), a (c)- D_4' -group ((c) and D_4' are as defined above), a D_4 - D_4' -group (D_4 are as defined above), a D_4 - D_4' -group (D_4 and D_4 are as defined above), a D_4 - D_4' -group (D_4 and D_4 are as defined above);
- (4) an A_9 ' group: a C1-C10 alkyl group or a C2-C10 haloalkyl group;
- (5) an A_7'' group: a C2-C10 alkenyl group, a C3-C10 alkenyl group substituted with a halogen atom, a C3-C10 alkynyl group optionally substituted with a halogen atom, a R_2 - B_1 - R_4' -group (R_2 , B_1 and R_4' are as defined above), a D_4 - R_4' -group (D_4 and D_4 are as defined above), a D_5 - D_4 -group (D_5 and D_4 are as defined above), a D_1 - D_4 -group (D_1 and D_4 are as defined above), a (D_1 - D_4 -group (D_1 and D_4 -are as defined above), a (D_1 - D_4 -group (D_1 and D_4 -are as defined above), a (D_2 - D_4 -group (D_4 -group (D_4 -are as defined above), a D_4 - D_4 -group (D_4 -group (D_4 -are as defined above), a D_4 - D_4 -group (D_4 -group (D_4 -are as defined above), a D_4 - D_4 -group (D_4 -group (D_4 -are as defined above) or an D_4 - D_4 -group (D_4 -group (D_4 -are as defined above);
- (i) a D_4 group: a hydroxy group or an A_1 -O-group $[A_1]$ represents a R_3 - $(CHR_0)_m$ - $(B_2$ - $B_3)_m$ '-group $\{R_3\}$ represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom or a R_2 - B_1 -group $(R_2]$ and B_1 are as defined above), or a C2-C10 alkenyl group, or a C2-C10 alkynyl group, R_0 represents a hydrogen atom, a C1-C10 alkyl group or a C2-C10haloalkyl group, R_0 represents a single bond, an oxy group, a thio

group or a $-N((0)_nR_1')$ -group $(R_1'$ is as defined above, and n represents 0 or 1), B_3 is as defined above, m' represents 0 or 1 and, when B_3 is a sulfonyl group, then m is 0, and R_3 is not a hydrogen atom}];

- (ii) a D₅ group: an O=C(R₃)-group (R₃ is as defined above), an A₁-(O)_n-N=C(R₃)-group (A₁, n and R₃ are as defined above), a R₁-B₀-CO-R₄-(O)_n-N=C(R₃)-group [R₁, R₄, n and R₃ are as defined above, and B₀ represents an oxy group, a thio group or a -N((O)_mR₁')-group (R₁' and m are as defined above)], a D₂-R₄-(O)_n-N=C(R₃)-group (D₂, R₄, n and R₃ are as defined above) or a R₁A₁N-N=C(R₃)-group (R₁, A₁ and R₃ are as defined above);
- (iii) a D_1 group: a $(R) (O)_k A_1 N_1 (O)_k'$ -group $(R_1 \text{ and } A_1 \text{ are})$ as defined above, and k and k' are the same or different, and represent 0 or 1);
- (iv) a D_2 group: a cyano group, a $R_1R_1'NC(=N-(O)_n-A_1)$ -group $(R_1, R_1', n \text{ and } A_1 \text{ are as defined above})$, an $A_1N=C-(OR_2)$ -group $(A_1 \text{ and } R_2 \text{ are as defined above})$ or a NH_2-CS -group; (v) a D_3 group: a nitro group or a R_1OSO_2 -group $(R_1 \text{ is as defined above})$;
- (vi) an A₂ group:
- 1) an A_3-B_4 -group

[A₃ represents a hydrogen atom, or a C1-C10 alkyl group, or a C2-C10 haloalkyl group, or a C2-C10 alkenyl group optionally substituted with a halogen atom, or a C3-C10 alkynyl group optionally substituted with a halogen atom, or a R_a -(R_4)_m-group (R_a represents a phenyl group, a pyridyl group, a furyl group or a thienyl group, optionally substituted with a halogen atom, a C1-C10 alkyl group, a C1-C10 alkoxy group or a nitro group, and R_4 and m are as defined above), or a C1-C10 alkyl group substituted with a (b)- R_4 -group ((b) and R_4 are as defined above), a (c)- R_4 -

group ((c) and R_4 are as defined above), a R_2 - B_1 - R_4 -group (R_2 , B_1 and R_4 are as defined above), a D_4 - R_4 -group (D_4 and R_4 are as defined above), a D_5 -group (D_5 is as defined above), a D_1 - R_4 -group (D_1 and R_4 are as defined above), a D_2 -group (D_2 is as defined above), a D_3 - R_4 -group (D_3 and D_4 are as defined above) or an D_4 - D_2 - D_4 -group (D_4 is as defined above), and D_4 -group (D_4 is as defined above), and D_4 -group (D_4 - D_4 - D_4 -group (D_4 - D_4 - D_4 - D_4 -group (D_4 - D_4 -

 B_4 represents an oxy group, a thio group or a $-N((O)_mR_1)$ -group (R_1 and m are as defined above), provided that when B_4 is a thio group, A_3 is not a hydrogen atom];

- 2) a $R_1-B_4-CO-R_4-B_4'$ -group (R_1 , B_4 and R_4 are as defined above, B_4' is the same as or different from B_4 , and has the same meaning as that of B_4 , provided that when B_4 is a thio group, R_2 is not a hydrogen atom), or a $D_2-R_4-B_4$ -group (D_2 , R_4 and B_4 are as defined above);
- 3) a R_2 -SO₂-NR₁-group (R_2 is as defined above, provided that a hydrogen atom is excluded, and R_1 is as defined above);
- 4) a (b)-group ((b) is as defined above);
- 5) a (c)-group ((c) is as defined above) or
- 6) a $R_1A_1N-NR_1'$ -group (R_1 , A_1 and R_1' are as defined above); V. M_a' is the same as or different from M_a , and has the same meaning as that of M_a , and r represents 0, 1, 2, 3 or 4, provided that when an A ring is a benzene ring, in case that q is 0, then p is 2, 3 or 4; and

the "as defined above" between a plurality of substituents indicates that the plurality of substituents independently represent the same meaning as that described above and, between the plurality of substituents, a selection range of selected substituents is the same, while the selected substituents may be the same or different as far as they are selected in the range];

12. (Original) A 2H-1-benzopyran-2-one compound represented by the formula (XII):

$$(X_e)_p \xrightarrow{A} A OOH (XII)$$

[wherein

I. A represents a benzene ring or a pyridine ring; II. In $(X_e)_p$, X_e represents a hydroxy group, a halogen atom, a C1-C10 alkyl group, a R'-S(0)1- group (R' represents a C1-C10 alkyl group, and l represents 0, 1 or 2), a cyano group, a HOCO-CH=CH-group, a $(R')_2N$ -group (R' is as defined above), a R' CO-NH-group (R' is as defined above), a nitro group or a C1-C10 alkoxy group, p represents 0, 1, 2, 3 or 4 and, when p is 2 or more, X_d 's are the same or different; III. In $(Y_e)_q$, Y_e is a substituent on a carbon atom, and represents a substituent of the following X_5 group or Y_5 group, q represents 0, 1, 2, 3, 4 or 5, when q is 2 or more, Y_e 's are the same or different and, when q is 2 or more, the adjacent two same or different Y_e 's constitute a group of a Z_5 group, and may be fused with an A ring; (1) a X_5 group:

a M_a -group [M_a represents a R_b -group (R_b represents a C1-C10 alkyl group optionally substituted with a halogen atom), a halogen atom, a nitro group, a cyano group, a hydroxyl group, a R_c - B_a - R_d -group (R_c represents a C1-C10 alkyl group optionally substituted with a halogen atom, B_a represents an oxy group, a thio group, a sulfinyl group or a sulfonyl group, and R_d represents a single bond or a C1-C10 alkylene group), a HOR_d -group (R_d is as defined above), a R_e -CO- R_d -group (R_d represents a hydrogen atom, or a C1-C10 alkylene

group optionally substituted with a halogen atom, and R_d is as defined above), a R_e -CO-O- R_d -group (R_e and R_d are as defined above), a $R_eO-CO-R_d$ -group (R_e and R_d are as defined above), a HO-CO-CH=CH-group, a R_eR_e'N-R_d-group (R_e and R_e' are the same or different, R_e is as defined above, $R_{e'}$, has the same meaning as that of R_e , and R_d is as defined above), a R_e -CO-N R_e '- R_d -group (R_e , R_e ' and R_d are as defined above), a $R_bO-CO-N(R_e)-R_d$ -group (R_b , R_e and R_d are as defined above), a $R_eR_e'N-CO-R_d$ -group (R_e , R_e' and R_d are as defined above), a $R_eR_e'N-CO-NR_e''-R_d$ -group (R_e , R_e' and R_e'' are the same or different, Re and Re' are as defined above, Re" has the same meaning as that of R_e , and R_d is as defined above), a $R_eR_e'N C(=NR_e'')-NR_e'''-R_d$ -group (Re, Re', Re' and Re''' are the same or different, R_e , $R_e{'}$ and $R_e{''}$ are as defined above, $R_e{''}{'}$ has the same meaning as that of R_e , and R_d is as defined above), a $R_b-SO_2-NR_e-R_d$ -group (R_b , R_e and R_d are as defined above), a $R_eR_e'N-SO_2-R_d$ -group (R_e , R_e' and R_d are as defined above), a C2-C10 alkenyl group or a C2-C10 alkynyl group], provided that when A represents a benzene ring, then a X_e -group (X_e is as defined above) is excluded;

(2) a Y_5 group:

a M_b - R_d -group [M_b represents a M_c -group { M_c represents a M_d - R_d '-group { M_d represents a phenyl group optionally substituted with a M_a -group (M_a is as defined above), or a pyridyl group optionally substituted with a M_a -group (M_a is as defined above), or a naphthyl group optionally substituted with a M_a -group (M_a is as defined above), or

(b)
$$G_3 N - G_5$$

a (b)-group {in (b), G_1 , G_2 , G_4 and G_5 represent a methylene group which is connected to an adjacent atom with a single bond, and may be substituted with a methyl group, or a methine group which is connected to an adjacent atom with a double bond, and may be substituted with a methyl group, and G₃ represents a single bond, or a double bond, or a C1-C10 alkylene group optionally substituted with a methyl group, an oxy group, a thio group, a sulfinyl group, a sulfonyl group or a $-NR_1$ -group $\{R_1 \text{ represents a hydrogen }$ atom, or a C1-C10 alkyl group, or a C2-C10 alkyl group substituted with a halogen atom or a R₂-B₁-group (R₂ represents a C1-C10 alkyl group, a C3-C10 alkenyl group or a C3-C10 alkynyl group, and B_1 represents an oxy group, a thio group, a sulfinyl group or a sulfonyl group), or a C3-C10 alkenyl group, or a C3-C10 alkynyl group}, or a C2-C10 alkenylene group optionally substituted with a methyl group, an oxy group, a thio group, a sulfinyl group, a sulfonyl group or a $-NR_1$ -group (R_1 is as defined above)},

(c)
$$\int_{3}^{J_2=J_1} N$$
—

a (c)-group (in (c), J_1 , J_2 and J_3 are the same or different, and represent a methine group optionally substituted with a methyl group, or a nitrogen atom),

(d)
$$N \longrightarrow B_b$$

a (d)-group (1 is 2, 3 or 4, and B_b represents an oxy group or a thio group) or

(e)
$$B_b \longrightarrow B_b$$

a $-N=C(Y_a)-Y_a'-group$ (Y_a represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom, or a C1-C10 alkoxy group, and Ya' represents an oxy group, or a thio group, or an imino group optionally substituted with a C1-C10 alkyl group), a $-Y_b-Y_b'-Y_b''-group$ $(Y_b$ and Y_b " are the same or different, and represent a methylene group, or an oxy group, or a thio group, or a sulfinyl group, or an imino group optionally substituted with a C1-C10 alkyl group, and Y_b ' represents a C1-C4 alkylene group optionally substituted with a halogen atom, or a C1-C4 alkylene group optionally having an oxo group) or a $-Y_c-O-Y_c'-O$ -group (Y_c and Y_c' are the same or different, and represent a C1-C10 alkylene group), provided that when p is 0, then Ye is not fused with an A ring to form a benzo[1,3]dioxol ring;

IV. $M_a{}'$ is the same as or different from $M_a{}$, and has the same meaning as that of $M_a{}$, and r represents 0, 1, 2, 3 or

4, provided that when an A ring is a benzene ring, then q is not 0; and

the "as defined above" in the same symbol between a plurality of substituents indicates that the plurality of substituents independently represent the same meaning as that described above and, between the plurality of substituents, a selection range of selected substituents is the same, while the selected substituents may be the same or different as far as they are selected in the range];

13. (Original) A 2H-1-benzopyran-2-one compound represented by the formula (XIII):

$$(X_{II})_k \xrightarrow{I} O O r_I$$

[wherein X_{II} represents a hydrogen atom, or a hydroxyl group, or a halogen atom, or a C1-C4 alkyl group optionally substituted with a halogen atom or a C1-C4 alkoxy group, or a C2-C4 alkenyl group, or a C2-C4 alkynyl group, or a C3-C4 alkoxy group, or a R_I -S(O)₁-group (R_I represents a C1-C4 alkyl group, and l represents an integer of 0 to 2), or a nitro group, or a cyano group, or a carboxy group, or a C1-C4 alkoxycarbonyl group, or a (R_I)₂N-group (R_I is as defined above), or a R_I -C0-N_I-group (R_I is as defined above), or a R_I O-C0-NH-group (R_I is as defined above), or a R_I NH-C0-NH-group (R_I is as defined above), or a (R_I ')₂N-C0-group (R_I ' represents a hydrogen atom or a C1-C4 alkyl group), or a RB-group (B represents an oxygen atom or a sulfur atom, and R represents a C1-C4 alkyl group substituted with a halogen atom), k represents an integer of 1 to 4 and, when k is an

integer of 2 to 4, X_{II} 's may be different, and r_I represents a C1-C4 alkyl group, a C2-C4 alkenyl group or a C2-C4 alkynyl group];

14. (Original) A 2H-1-benzopyran-2-one compound represented by the formula (XIV):

$$X_{||}$$
 $(X_{||})_{m}$
 O
 OH
 (XIV)

[wherein X_{II} ' represents a C1-C4 alkyl group substituted with a halogen atom or a C1-C4 alkoxy group, a C2-C4 alkenyl group, a C2-C4 alkynyl group, a C3-C4 alkoxy group, a R_{II} -S(O)₁-group (R_{II} represents a C2-C4 alkyl group, and l represents an integer of 0 to 2), a cyano group, a carboxy group, a C_1 -C4 alkoxycarbonyl group, a $(R_{II})_2$ N-group (R_{II} is as defined above), a R_I -C0-NH-group (R_I represents a C1-C4 alkyl group), a R_I 0-C0-NH-group (R_I is as defined above), a R_I NH-C0-NH-group (R_I is as defined above), a (R_I ')₂N-C0-group (R_I ' represents a hydrogen atom or a C1-C4 alkyl group) or a RB-group (B represents an oxygen atom or a sulfur atom, and R represents a C1-C4 alkyl group substituted with a halogen atom), X_{II} " represents a hydrogen atom, a halogen atom, a C1-C4 alkyl group or a C3-C4 alkoxy group, m represents 1 or 2 and, when m is 2, X_{II} "'s may be different];

15. (Original) A I type collagen gene transcription suppressing composition, which comprises a 2(1H)-pyridinone compound represented by the formula (XV):

$$(Y_f)_q \xrightarrow{Q_A} K_a \qquad (XV)$$

[wherein

I. A represents a benzene ring or a pyridine ring; II. In $(Y_f)_q$, Y_f is a substituent on a carbon atom, and represents a group of the following X group or Y group, q represents 0, 1, 2, 3, 4 or 5, when q is 2 or more, Y_f 's are the same or different and, when q is 2 or more, the adjacent two same or different Y_f 's constitutes a group of a Z group, and may be fused with an A ring;

(1) a X group:

a M_a -group [M_a represents a R_b -group (R_b represents a C1-C10 alkyl group optionally substituted with a halogen atom), a halogen atom, a nitro group, a cyano group, a hydroxy group, a R_c-B_a-R_d-group (R_c represents a C1-C10 alkyl group optionally substituted with a halogen atom, Ba represents an oxy group, a thio group, a sulfinyl group or a sulfonyl group, and R_d represents a single bond or a C1-C10 alkylene group), a HOR_d -group (R_d is as defined above), a R_e - $CO-R_d$ group (Re represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom, and R_d is as defined above), a R_e -CO-O- R_d -group (R_e and R_d are as defined above), a $R_eO-CO-R_d$ -group (R_e and R_d are as defined above), a HO-CO-CH=CH-group, a $R_eR_e'N-R_d-group$ (R_e and R_e' are the same or different, Re is as defined above, Re' has the same meaning as that of R_e , and R_d is as defined above), a R_e -CO-NR_e'-R_d-group (R_e, R_e' and R_d are as defined above), a $R_bO-CO-N(R_e)-R_d$ -group (R_b , R_e and R_d are as defined above), a $R_eR_e'N-CO-R_d$ -group (R_e , R_e' and R_d are as defined above), a

 $R_eR_e'N\text{-CO-NR}_e''\text{-}R_d\text{-}group~(R_e,~R_e'~and~R_e''~are~the~same~or~different,~R_e~and~R_e'~are~as~defined~above,~R_e''~has~the~same~meaning~as~that~of~R_e,~and~R_d~is~as~defined~above),~a~R_eR_e'N\text{-}C(=NR_e'')\text{-}NR_e'''\text{-}R_d\text{-}group~(R_e,~R_e',~R_e''~and~R_e'''~are~the~same~or~different,~R_e,~R_e'~and~R_e''~are~as~defined~above,~R_e'''~has~the~same~meaning~as~that~of~R_e,~and~R_d~is~as~defined~above),~a~R_b\text{-}SO_2\text{-}NR_e\text{-}R_d\text{-}group~(R_b,~R_e~and~R_d~are~as~defined~above),~a~R_eR_e'N\text{-}SO_2\text{-}R_d\text{-}group~(R_e,~R_e'~and~R_d~are~as~defined~above),~a~C2\text{-}C10~alkenyl~group~or~a~C2\text{-}C10~alkynyl~group];}$

(2) a Y group:

a M_b -R_d-group [M_b represents a M_c -group { M_c represents a M_d -R_d'-group { M_d represents a phenyl group optionally substituted with a M_a -group (M_a is as defined above), or a pyridyl group optionally substituted with a M_a -group (M_a is as defined above), or a naphthyl group optionally substituted with a M_a -group (M_a is as defined above), or

(b)
$$G_3$$
 N — G_4-G_5

a (b)-group {in (b), G_1 , G_2 , G_4 and G_5 represent a methylene group which is connected to an adjacent atom with a single bond, and may be substituted with a methyl group, or a methine group which is connected to an adjacent atom with a double bond, and may be substituted with a methyl group, and G_3 represents a single bond, or a double bond, or a C1-C10 alkylene group optionally substituted with a methyl group, an oxy group, a thio group, a sulfinyl group, a sulfonyl group or a -NR₁-group {R₁ represents a hydrogen atom, or a C1-C10 alkyl group, or a C2-C10 alkyl group substituted with a halogen atom or a R₂-B₁-group (R₂ represents a C1-C10 alkyl group, a C3-C10 alkenyl group or

a C3-C10 alkynyl group, and B_1 represents an oxy group, a thio group, a sulfinyl group or a sulfonyl group), or a C3-C10 alkenyl group, or a C3-C10 alkynyl group}, or a C2-C10 alkenylene group optionally substituted with a methyl group, an oxy group, a thio group, a sulfinyl group, a sulfonyl group or a $-NR_1$ -group (R_1 is as defined above)},

(c)
$$\int_{3}^{J_2=J_1} N$$
—

a (c)-group (in (c), J_1 , J_2 and J_3 are the same or different, and represent a methine group optionally substituted with a methyl group, or a nitrogen atom),

(d)
$$N \rightarrow B_b$$

a (d)-group (1 is 2, 3 or 4, and B_b represents an oxy group or a thio group) or

(e)
$$B_b \longrightarrow B_b$$

an (e)-group (l and B_b are as defined above), R_d ' is the same as or different from R_d , and has the same meaning as that of R_d }, a M_c - B_a -group (M_c and B_a are as defined above), a M_c -CO-group (M_c is as defined above), a M_c -CO-O-group (M_c is as defined above), a M_c O-CO-group (M_c is as defined above), a M_c ReN-group (M_c and R_e are as defined above), a M_c O-CO- NR_e -group (M_c and R_e are as defined above), a M_c O-CO- NR_e -group (M_c and R_e are as defined above), a M_c ReN-CO-group (M_c and R_e are as defined above), a M_c ReN-CO-group (M_c and R_e are as defined above), a M_c ReN-CO- NR_e -group (M_c and R_e are as defined above), a M_c ReN-CO- NR_e -group (M_c and R_e are as defined above), a M_c ReN-CO- NR_e -group (M_c and R_e - are as defined above), a M_c ReN-CO- NR_e -group (M_c - NR_e -group

 (M_c, R_e, R_e') and R_e'' are as defined above), a $M_c-SO_2-NR_e-group$ $(M_c \text{ and } R_e \text{ are as defined above}) \text{ or a } M_c R_e N - SO_2 - \text{group } (M_c \text{ and } M_c R_e N - SO_2 - \text{group } (M_c R_e N - SO_2 - \text{gr$ R_e are as defined above), and R_d is as defined above]; (3) a Z group: a $-N=C(Y_a)-Y_a'$ -group (Y_a represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom, or a C1-C10 alkoxy group, and Ya' represents an imino group optionally substituted with an oxy group, or a thio group, or a C1-C10 alkyl group), a $-Y_b-Y_b'-Y_b''$ -group (Y_b and Y_b'' are the same or different, and represent a methylene group, or an oxy group, or a thio group, or a sulfinyl group, or an imino group optionally substituted with a C1-C10 alkyl group, and Y_b ' represents a C1-C4alkylene group optionally substituted with a halogen atom, or a C1-C4alkylene group optionally having an oxo group), or a $-Y_c-0-Y_c'-0$ -group (Y_c and Y_c' are the same or different, and represent a C1-C10 alkylene group);

III. Q_A represents a hydroxyl group, a (b)-group ((b) is as defined above), an A_9 - B_6 - B_c -group [A_9 represents a substituent of the following A_7 group or A_8 group, B_6 represents a carbonyl group or a thiocarbonyl group, and B_c represents an oxy group or a -N((0) $_m$ R₁)-group (m represents 0 or 1, and R₁ is as defined above), provided that when A_9 is a hydrogen atom, then B_c is not a sulfonyl group], an A_7 "-SO₂- B_c -group (A_7 " represents a substituent of the following A_7 " group, and B_c is as defined above), an A_8 -SO₂- B_c -group (A_8 represents a substituent of the following A_8 group, and B_c is as defined above, provided that A_8 is not a hydrogen atom), a R_1R_1 'N-SO₂- B_c group (R_1 is as defined above, R_1 ' is the same as or different of R_1 , and has the same meaning of R_1 , and B_c is as defined above), a (b)-SO₂- B_c -group ((b) and B_c are as defined above), an A_9 '- B_c -group

 $(A_9'$ represents a substituent of the following A_7' group or a A_8' group, and B_c is as defined above), a $D_5-R_4-B_c$ -group (D_5 represents a substituent of the following D_5 group, R_4 represents a C1-C10 alkylene group, and B_c is as defined above), a $M_c-B_3-B_c$ -group (B_3 represents a carbonyl group, a thiocarbonyl group or a sulfonyl group, and M_c and B_c are as defined above) or a M_c-B_c -group (M_c and M_c are as defined above);

(1) an A_7 group:

a C2-C10 alkenyl group optionally substituted with a halogen atom, a C2-C10 alkynyl group, a C3-C10 haloalkynyl group, a $R_2-B_1-R_4$ -group (R_2 and B_1 are as defined above, and R_4 is as defined above), a D_4 - R_4 -group (D_4 represents a substituent of the following D_4 group, and R_4 is as defined above), a D_5-R_4 -group (D_5 represents a substituent of the following D_5 group, and R_4 is as defined above), a D_1-R_4 group $\{D_1 \text{ represents a substituent of the following } D_1$ group, and R_4 is as defined above}, a (b)- R_4 -group ((b) is as defined above, and R_4 is as defined above), a (c)- R_4 group ((c) is as defined above, and R_4 is as defined above), a D₂-R₄-group {D₂ represents a substituent of the following D_2 group, and R_4 is as defined above}, a D_3-R_4 -group { D_3 represents a substituent of the following D₃ group, and R₄ is as defined above}, an A_4 -SO₂- R_4 -group { A_4 represents a (b)-group ((b) is as defined above), a (c)-group ((c) is as defined above) or a $R_1R_1'N$ -group (R_1 and R_1' are as defined above), and R_4 is as defined above} or an A_2 -CO- R_4 -group (A_2 represents a substituent of the following A2 group, and R4 is as defined above);

(2) an A_8 group: a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom;

- (3) an A_7' group: a C3-C10 alkenyl group optionally substituted with a halogen atom, a C3-C10 alkynyl group optionally substituted with a halogen atom, a R_2 - B_1 - R_4' -group (R_2 and B_1 are as defined above, and R_4' represents a C2-C10 alkylene group), a D_4 - R_4' -group (D_4 and R_4' are as defined above), a D_1 - D_4' -group (D_1 and D_4' are as defined above), a (b)- D_4' -group ((b) and D_4' are as defined above), a (c)- D_4' -group ((c) and D_4' are as defined above), a D_4 - D_4' -group (D_4 and D_4 are as defined above), a D_4 - D_4 -group (D_4 and D_4 are as defined above), a D_4 -group (D_4 and D_4 are as defined above);
- (4) an A_8 ' group: a C1-C10 alkyl group or a 2-C10 haloalkyl group;
- (5) an A_7'' group: a C2-C10 alkenyl group, a C3-C10 alkenyl group substituted with a halogen atom, a C3-C10 alkynyl group optionally substituted with a halogen atom, a R_2 - B_1 - R_4' -group (R_2 , B_1 and R_4' are as defined above), a D_4 - R_4' -group (D_4 and D_4 are as defined above), a D_5 - D_4 -group (D_5 and D_4 are as defined above), a D_1 - D_4 -group (D_1 and D_4 are as defined above), a (D_1 - D_4 -group (D_1 and D_4 -are as defined above), a (D_1 - D_4 -group (D_1 and D_4 -are as defined above), a (D_2 - D_4 -group (D_4 -group (D_4 -are as defined above), a D_2 - D_4 -group (D_4 -group (D_4 -are as defined above), a D_4 - D_4 -group (D_4 -group (D_4 -are as defined above), a D_4 - D_4 -group (D_4 -group (D_4 -are as defined above) or an D_4 - D_4 -group (D_4 -are as defined above);
- (i) a D₄ group: a hydroxy group or an A_1 -O-group [A_1 represents a R_3 -(CHR₀)_m-(B_2 - B_3)_m,-group { R_3 represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom or a R_2 - B_1 -group (R_2 and B_1 are as defined above), or a C2-C10 alkenyl group, or a C2-C10 alkynyl group, R_0 represents a hydrogen atom, a C1-C10 alkyl group or a C2-C10 haloalkyl group, m is as defined above, B_2 represents a single bond, an oxy group, a thio

group or a $-N((O)_nR_1')$ -group $(R_1'$ is as defined above, and n represents 0 or 1), B_3 is as defined above, m' represents 0 or 1 and, when B_3 is a sulfonyl group, then m is 0, and R_3 is not a hydrogen atom}];

- (ii) a D_5 group: an $O=C(R_3)$ -group (R_3 is as defined above), an $A_1-(O)_n-N=C(R_3)$ -group (A_1 , n and R_3 are as defined above), a $R_1-B_0-CO-R_4-(O)_n-N=C(R_3)$ -group [R_1 , R_4 , n and R_3 are as defined above, and B_0 represents an oxy group, a thio group or a $-N((O)_mR_1')$ -group (R_1' and m are as defined above)], a $D_2-R_4-(O)_n-N=C(R_3)$ -group (D_2 , D_3 , n and D_3 are as defined above) or a D_3 - D_3 -group (D_3 , D_3 -group (D_3 , D_3 -group (D_3)-group (D_3 , D_3 -group (D_3)-group (D_3)-gr
- (iii) a D_1 group: a $(R_1-(0)_k-)A_1N-(0)_k'$ -group $(R_1$ and A_1 are as defined above, and k and k' are the same or different, and represent 0 or 1);
- (iv) a D_2 group: a cyano group, a $R_1R_1'NC(=N-(O)_n-A_1)$ -group $(R_1, R_1', n \text{ and } A_1 \text{ are as defined above})$, an $A_1N=C(-OR_2)$ -group $(A_1 \text{ and } R_2 \text{ are as defined above})$ or a NH_2-CS -group; (v) a D_3 group: a nitro group or a R_1OSO_2 -group $(R_1 \text{ is as defined above})$;
- (vi) an A₂ group:
- 1) an A_3-B_4 -group

[A₃ represents a hydrogen atom, or a C1-C10 alkyl group, or a C2-C10 haloalkyl group, or a C2-C10 alkenyl group optionally substituted with a halogen atom, or a C3-C10 alkynyl group optionally substituted with a halogen atom, or a R_a -(R_4)_m-group (R_a represents a phenyl group, a pyridyl group, a furyl group or a thienyl group, optionally substituted with a halogen atom, a C1-C10 alkyl group, a C1-C10 alkoxy group or a nitro group, and R_4 and m are as defined above), or a C1-C10 alkyl group substituted with a (b)- R_4 -group ((b) and R_4 are as defined above), a (c)- R_4 -

group ((c) and R_4 are as defined above)], a R_2 - B_1 - R_4 -group (R_2 , B_1 and R_4 are as defined above), a D_4 - R_4 -group (D_4 and R_4 are as defined above), a D_5 -group (D_5 is as defined above), a D_1 - R_4 -group (D_1 and R_4 are as defined above), a D_2 -group (D_2 is as defined above), a D_3 - R_4 -group (D_3 and D_4 are as defined above) or an D_4 - D_2 - D_4 -group (D_4 is as defined above), and D_4 - D_4 -group (D_4 - D_4 - D_4 -group (D_4 - D_4 - D_4 - D_4 -group (D_4 - D_4 -

 B_4 represents an oxy group, a thio group, or a - $N((O)_mR_1)$ -group (R_1 and m are as defined above), provided that when B_4 is a thio group, then A_3 is not a hydrogen atom];

- 2) a R_1 - B_4 -CO- R_4 - B_4 '-group (R_1 , B_4 and R_4 are as defined above, B_4 ' is the same as or different from R_4 , and has the same meaning as that of B_4 , provided that when R_4 is a thio group, then R_2 is not a hydrogen atom) or a D_2 - R_4 - B_4 -group (D_2 , R_4 and B_4 are as defined above);
- 3) a R_2 -SO₂-NR₁-group (R_2 is as defined above, provided that a hydrogen atom is excluded, and R_1 is as defined above);
- 4) a (b)-group ((b) is as defined above);
- 5) a (c)-group ((c) is as defined above) or
- 6) a $R_1A_1N-NR_1'$ -group (R_1 , A_1 and R_1' are as defined above); IV. T_A represents a hydrogen atom, an A_9' -group (A_9' is as defined above), a D_5-R_4 -group (D_5 and R_4 are as defined above) or a M_c -group (M_c is as defined above);
- V. K_a represents a hydrogen atom, a halogen atom or a C1-C10 alkyl group, L_a represents a hydrogen atom, a C1-C10 alkyl group or a M_b -group (M_b is as defined above) or a K_a and L_a may form a C1-C10 alkylene group; and

the "as defined above" in the same symbol between a plurality of substituents indicates that the plurality of substituents independently represent the same meaning as that described above and, between the plurality of

substituents, a selection range of selected substituents is the same, while the selected substituents may be the same or different as far as they are selected in the range]; and an inert carrier;

16. (Original) A 2(1H)-pyridinone compound represented by the formula (XVI):

$$(X_g)_p$$
 A
 O
 Q_A
 K_a
 (XVI)

[wherein

II. In $(X_g)_p$, X_g represents a hydroxyl group, a halogen atom, a $(R')_2N$ -group (R' represents a C1-C10 alkyl group), a

I. A represents a benzene ring or a pyridine ring;

nitro group or a C1-C10 alkoxy group, p represents 0, 1, 2, 3 or 4 and, when p is 2 or more, X_g 's are the same or

different;

III. In $(Y_g)_q$, Y_g is a substituent on a carbon atom, and represents a group of the following X_6 group or Y_6 group, q represents 0, 1, 2, 3, 4 or 5, when q is 2 or more, Y_g 's are the same or different and, when q is 2 or more, the adjacent two same or different Y_g 's constitutes a group of a Y_g group, and may be fused with an A ring;

(1) a X_6 group:

a M_a -group [M_a represents a R_b -group (R_b represents a C1-C10 alkyl group optionally substituted with a halogen atom), a halogen atom, a nitro group, a cyano group, a hydroxyl group, a R_c - B_a - R_d -group (R_c represents a C1-C10 alkyl group optionally substituted with a halogen atom, B_a represents an

oxy group, a thio group, a sulfinyl group or a sulfonyl group, and R_d represents a single bond or a C1-C10 alkylene group), a HORd-group (Rd is as defined above), a Re-CO-Rdgroup (Re represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom, and R_d is as defined above), a R_e -CO-O- R_d -group (R_e and R_d are as defined above), a $R_eO-CO-R_d$ -group (R_e and R_d are as defined above), a HO-CO-CH=CH-group, a $R_eR_e'N-R_d$ -group (R_e and R_e' are the same or different, R_{e} is as defined above, $R_{e}{}^{\prime}$ has the same meaning as that of R_e , and R_d is as defined above), a R_e -CO-NR_e'-R_d-group (R_e, R_e' and R_d are as defined above), a $R_bO-CO-N(R_e)-R_d$ -group (R_b , R_e and R_d are as defined above), a $R_eR_e'N-CO-R_d$ -group (R_e , R_e' and R_d are as defined above), a $R_eR_e'N-CO-NR_e''-R_d$ -group (R_e , R_e' and R_e'' are the same or different, Re and Re' are as defined above, Re" has the same meaning as that of a R_e , and R_d is as defined above), a $R_eR_e'N-C(=NR_e'')-NR_e'''-R_d$ -group (R_e, R_e', R_e'') and R''' are the same or different, R_e , R_e' and R_e'' are as defined above, R_e''' has the same meaning as that of R_{e} , and R_{d} is as defined above), a R_b -SO₂-NR_e-R_d-group (R_b , R_e and R_d are as defined above), a $R_eR_e'N-SO_2-R_d$ -group (R_e , R_e' and R_d are as defined above), a C2-C10 alkenyl group or a C2-C10 alkynyl group], provided that when A represents a benzene ring, then a X_q group $(X_q \text{ is as defined above})$ is excluded;

(2) a Y_6 group:

a M_b - R_d -group [M_b represents a M_c -group { M_c represents a M_d - R_d '-group { M_d represents a phenyl group optionally substituted with a M_a -group (M_a is as defined above), or a pyridyl group optionally substituted with a M_a -group (M_a is as defined above), or a naphthyl group optionally substituted with a M_a -group (M_a is as defined above), or

(b)
$$G_3 N - G_5$$

a (b)-group {in (b), G_1 , G_2 , G_4 and G_5 represent a methylene group which is connected to an adjacent atom with a single bond, and may be substituted with a methyl group, or a methine group which is connected to an adjacent atom with a double bond and may be substituted with a methyl group, and G_3 represents a single bond, or a double bond, or a C1-C10 alkylene group optionally substituted with a methyl group, an oxy group, a thio group, a sulfinyl group, a sulfonyl group or a $-NR_1$ -group $\{R_1 \text{ represents a hydrogen atom, or a }$ C1-C10 alkyl group, or a C2-C10 alkyl group substituted with a halogen atom or a R_2 - B_1 -group (R_2 represents a C1-C10 alkyl group, a C3-C10 alkenyl group or a C3-C10 alkynyl group, and B_1 represents an oxy group, a thio group, a sulfinyl group or a sulfonyl group), or a C3-C10 alkenyl group, or a C3-C10 alkynyl group}, or a C2-C10 alkenylene group optionally substituted with a methyl group, an oxy group, a thio group, a sulfinyl group, a sulfonyl group or a $-NR_1$ -group (R_1 is as defined above)},

(c)
$$\int_{3}^{J_2=J_1} N$$
—

a (c)-group (in (c), J_1 , J_2 and J_3 are the same or different, and represent a methine group optionally substituted with a methyl group, or a nitrogen atom),

(d)
$$N \longrightarrow B_b$$

a (d)-group (1 is 2, 3 or 4, and $B_{\mbox{\scriptsize b}}$ represents an oxy group or a thio group)

(e)
$$B_b \longrightarrow B_b$$

or

an (e)-group (1 and B_b are as defined above), R_d ' is the same as or different from R_d , and has the same meaning as that of R_d }, a M_c - B_a -group (M_c and B_a are as defined above), a M_c -CO-group (M_c is as defined above), a M_c -CO-G-group (G-G-Group (G-Group (G-Group

a $-N=C(Y_a)-Y_a'$ -group (Y_a represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom, or a C1-C10 alkoxy group, and Y_a' represents an oxy group, or a thio group, or an imino group optionally substituted with a C1-C10 alkyl group), a $-Y_b-Y_b'-Y_b''$ -group (Y_b and Y_b" are the same or different, a methylene group, or an oxy group, or a thio group, or a sulfinyl group, or an imino group optionally substituted with a C1-C10 alkyl group, and Y_b' represents a C1-C4alkylene group optionally substituted with a halogen atom, or a C1-C4 alkylene group optionally having an oxo group) or a $-Y_c-O-Y_c'-O$ -group (Y_c

and $Y_c{'}$ are the same or different, and represent a C1-C10 alkylene group);

IV. QA represents a hydroxyl group, a (b)-group ((b) is as defined above), an A₉-B₆-B_c-group [A₉ represents a substituent of the following A_7 group or A_8 group, B_6 represents a carbonyl group or a thiocarbonyl group, and Bc represents an oxy group or a $-N((0)_mR_1)$ -group (m represents 0 or 1, and R_1 is as defined above), provided that when A_9 is a hydrogen atom, then B_c is not a sulfonyl group], an $A_7''-SO_2-B_c$ -group (A_7'' represents a substituent of the following $A_7^{\prime\prime}$ group, and B_c is as defined above), an $A_8\text{-SO}_2\text{-}$ B_c-group (A₈ represents a substituent of the following A₈ group, B_1 is as defined above, provided that A_8 is not a hydrogen atom), a $R_1R_1'N-SO_2-B_c$ -group (R_1 is as defined above, R_1' is the same as or different from R_1 , and has the same meaning as that of R_1 , and B_c is as defined above), a (b) $-SO_2-B_c$ -group ((b) and B_c are as defined above), an A_9' - B_c -group (A_9 ' represents a substituent of the following A_7 ' group or A_8 ' group, and B_c is as defined above), a $D_5-R_4-B_c$ group (D₅ represents a substituent of the following D₅ group, R_4 represents a C1-C10 alkylene group, and B_c is as defined above), a $M_c-B_3-B_c$ -group (B_3 represents a carbonyl group, a thiocarbonyl group or a sulfonyl group, and $M_{\rm c}$ and B_{c} are as defined above), or a $M_{c}\!-\!B_{c}\!-\!group$ (M_{c} and B_{c} are as defined above);

(1) an A_7 group:

a C2-C10 alkenyl group optionally substituted with a halogen atom, a C2-C10 alkynyl group, a C3-C10 haloalkynyl group, a R_2 - B_1 - R_4 -group (R_2 and B_1 are as defined above, and R_4 is as defined above), a D_4 - R_4 -group (D_4 represents a substituent of the following D_4 group, and R_4 is as defined above), a D_5 - R_4 -group (D_5 represents a substituent of the

following D_5 group, and R_4 is as defined above), a D_1-R_4- group { D_1 represents a substituent of the following D_1 group, and R_4 is as defined above}, a (b)- R_4 -group ((b) is as defined above, and R_4 is as defined above), a (c)- R_4 -group ((c) is as defined above, and R_4 is as defined above), a D_2 - R_4 -group { D_2 represents a substituent of the following D_2 group, and D_2 are as defined above}, a D_3 - D_4 -group { D_3 represents a substituent of the following D_3 group, and D_4 is as defined above}, an D_4 - D_4 -group { D_4 -group (D_4

- (2) an A_8 group: a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom;
- (3) an A_7' group: a C3-C10 alkenyl group optionally substituted with a halogen atom, a C3-C10 alkynyl group optionally substituted with a halogen atom, a R_2 - B_1 - R_4' -group (R_2 and B_1 are as defined above, and R_4' represents a C2-C10 alkylene group), a D_4 - R_4' -group (D_4 and R_4' are as defined above), a D_1 - D_4' -group (D_1 and D_4' are as defined above), a (D_1 - D_4' -group ((D_1) and D_4 are as defined above), a (D_2 - D_4' -group ((D_1) and D_4 are as defined above), a D_2 - D_4 -group (D_2) and D_4 are as defined above), a D_3 - D_4' -group (D_4) and D_4 are as defined above), and an D_4 - D_4 -group (D_4) and D_4 -group (D_4)
- (4) an A_8 ' group: a C1-C10 alkyl group or a C2-C10 haloalkyl group;
- (5) an A_7 " group: a C2-C10 alkenyl group, a C3-C10 alkenyl group substituted with a halogen atom, a C3-C10 alkynyl group optionally substituted with a halogen atom, a R_2 - B_1 -

 R_4' -group (R_2 , B_1 and R_4' are as defined above), a D_4 - R_4' -group (D_4 and R_4' are as defined above), a D_5 - R_4 -group (D_5 and R_4 are as defined above), a D_1 - R_4' -group (D_1 and D_4' are as defined above), a (D_1 - D_4' -group ((D_1) and D_4 are as defined above), a (D_1 - D_4' -group ((D_2) and D_4 are as defined above), a D_2 - D_4 -group (D_2) and D_4 are as defined above), a D_2 - D_4 -group (D_4) and D_4 are as defined above) or an D_4 - D_4 -group (D_4) and D_4 are as defined above);

- (i) a D_4 group: a hydroxyl group or an A_1 -O-group [A_1 represents a R_3 -(CHR₀)_m-(B_2 - B_3)_{m'}-group { R_3 represents a hydrogen atom, or a C1-10 alkyl group optionally substituted with a halogen atom or a R_2 - B_1 -group (R_2 and B_1 are as defined above), or a C1-C10 alkenyl group, or a C2-C10 alkynyl group, R_0 represents a hydrogen atom, a C1-C10 alkyl group or a C2-C10 haloalkyl group, m is as defined above, B_2 represents a single bond, an oxy group, a thio group or a -N((O)_n R_1 ')- group (R_1 ' is as defined above, and n represents 0 or 1), B_3 is as defined above, m' represents 0 or 1 and, when B_3 is a sulfonyl group, m is 0, and R_3 is not a hydrogen atom}];
- (ii) a D₅ group: an O=C(R₃)-group (R₃ is as defined above), an A₁-(O)_n-N=C(R₃)-group (A₁, n and R₃ are as defined above), a R₁-B₀-CO-R₄-(O)_n-N=C(R₃)-group [R₁, R₄, n and R₃ are as defined above, and B₀ represents an oxy group, a thio group or a -N((O)_mR₁')-group (R₁' and m are as defined above)], a D₂-R₄-(O)_n-N=C(R₃)-group (D₂, R₄, n and R₃ are as defined above) or a R₁A₁N-N=C(R₃)-group (R₁, A₁ and R₃ are as defined above);
- (iii) a D_1 group: a $(R_1-(O)_k-)A_1N-(O)_k'$ -group $(R_1$ and A_1 are as defined above, and k and k' are the same or different, and represent 0 or 1);

(iv) a D_2 group: a cyano group, a $R_1R_1'NC(=N-(O)_n-A_1)$ -group (R_1 , R_1' , n and A_1 are as defined above), an $A_1N=C(-OR_2)$ -group (A_1 and R_2 are as defined above) or a NH_2 -CS-group; (v) a D_3 group: a nitro group or a R_1OSO_2 -group (R_1 is as defined above);

(vi) an A₂ group:

1) an A_3-B_4 -group

[A₃ represents a hydrogen atom, or a C1-C10 alkyl group, or a C2-C10 haloalkyl group, or a C2-C10 alkenyl group optionally substituted with a halogen atom, or a C3-C10 alkynyl group optionally substituted with a halogen atom, or a $R_a-(R_4)_m$ -group (R_a represents a phenyl group, a pyridyl group, a furyl group or a thienyl group, optionally substituted with a halogen atom, a C1-C10 alkyl group a C1-C10 alkoxy group or a nitro group, and R4 and m are as defined above), or a C1-C10 alkyl group substituted with a (b) $-R_4$ -group ((b) and R_4 are as defined above), a (c) $-R_4$ group ((c) and R_4 are as defined above), a $R_2-B_1-R_4$ -group $(R_2, B_1 \text{ and } R_4 \text{ are as defined above}), a D_4-R_4-group (D_4 \text{ and } R_4)$ are as defined above), a D_5 -group (D_5 is as defined above), a D_1-R_4 -group (D_1 and R_4 are as defined above), a D_2 -group $(D_2 \text{ is as defined above})$, a D_3-R_4 -group $(D_3 \text{ and } R_4 \text{ are as})$ defined above) or an $A_4-SO_2-R_4$ -group { A_4 is as defined above, and R_4 is as defined above),

 B_4 represents an oxy group, a thio group or a $-N((O)_mR_1)$ -group $(R_1$ and m are as defined above), provided that when B_4 is a thio group, then A_3 is not a hydrogen atom];

2) a R_1 - B_4 -CO- R_4 - B_4 '-group (R_1 , B_4 and R_4 are as defined above, B_4 ' is the same as or different from B_4 , and has the same meaning as that of B_4 , provided that when B_4 is a thio group, then R_2 is not a hydrogen atom) or a D_2 - R_4 - B_4 -group (D_2 , R_4 and B_4 are as defined above);

- 3) a R_2 -SO₂-NR₁-group (R_2 is as defined above, provided that a hydrogen atom is excluded, and R_1 is as defined above);
- 4) a (b)-group ((b) is as defined above);
- 5) a (c)-group ((c) is as defined above) or
- 6) a $R_1A_1N-NR_1'$ -group (R_1 , A_1 and R_1' are as defined above);
- V. T_A represents a hydrogen atom, an A_9 '-group (A_9 ' is as defined above), a D_5 - R_4 -group (D_5 and R_4 are as defined above) or a M_c -group (M_c is as defined above);

VI. K_a represents a hydrogen atom, a halogen atom or a C1-C10 alkyl group, L_a represents a hydrogen atom, a C1-C10 alkyl group or a M_b -group (M_b is as defined above), or K_a and L_a may form a C1-C10 alkylene group, provided that when an A ring is a benzene ring, then q is not 0; and

the "as defined above" in he same symbol between a plurality of substituents indicates that the plurality of substituents independently represent the same meaning as that described above and, between the plurality of substituents, a selection range of selected substituents is the same, while the selected substituents may be the same or different as far as they are selected in the range];

17. (Original) A I type collagen gene transcription suppressing composition, which comprises a 2 (1H)-pyridinone compound represented by the formula (XVII):

$$(X_{|||})_k$$
 $(XVII)$

[wherein XIII represents a hydrogen atom, or a hydroxy group, or a halogen atom, or a C1-C4 alkyl group optionally

substituted with a halogen atom or a C1-C4 alkoxy group, or a C2-C4 alkenyl group, or a C2-C4 alkynyl group, or a C1-C4 alkoxy group, or a R_1 -S(O)₁-group (R_1 represents a C1-C4 alkyl group, and 1 represents an integer of 0 to 2), or a nitro group, or a cyano group, or a carboxy group, or a C1-C4 alkoxycarbonyl group, or a $(R_I)_2N$ -group $(R_I$ is as defined above), or a $R_{\rm I}$ -CO-NH-group ($R_{\rm I}$ is as defined above), or a $R_{\rm I}$ O-CO-NH-group ($R_{\rm I}$ is as defined above), or a $R_{\rm I}$ NH-CO-NHgroup (R_I is as defined above), or a $(R_I')_2N$ -CO-group $(R_I')_2N$ represents a hydrogen atom or a C1-C4 alkyl group) or a RBgroup (B represents an oxygen atom or a sulfur atom, and R represents a C1-C4 alkyl group substituted with a halogen atom), K represents an integer of 1 to 4, when k is an integer of 2 to 4, X_{III} 's may be different, r_{II} and $r_{II'}$ are the same or different, and represent a hydrogen atom or a C1-C4 alkyl group]; and an inert carrier;

18. (Original) A 2(1H)-pyridinone compound represented by the formula (XVIII):

$$(X_{III})^{\prime\prime}$$
 O O C H_3 C H_3

[wherein $X_{\rm III}$ ' represents a C2-C4 alkyl group, or a C1-C4 alkyl group substituted with a halogen atom or a C1-C4 alkoxy group, or a C2-C4 alkenyl group, or a C2-C4 alkynyl group, or a C2-C4 alkoxy group, or a $R_{\rm I}$ -S(O)₁-group ($R_{\rm I}$ represents a C1-C4 alkyl group, and 1 represents an integer of 0 to 2), or a cyano group, or a carboxy group, or a C1-

C4 alkoxycarbonyl group, a $(R_{II})_2N$ -group $(R_{II}$ represents a C2-C4 alkyl group), or a R_I -CO-NH-group $(R_I$ is as defined above), or a R_I O-CO-NH-group $(R_I$ is as defined above), or a R_I NH-CO-NH-group $(R_I$ is as defined above), or a $(R_I')_2N$ -CO-group $(R_I'$ represents a hydrogen atom or a C1-C4 alkyl group), or a RB-group $(R_I)_1$ represents an oxygen atom or a sulfur atom, and R represents a C1-C4 alkyl group substituted with a halogen atom), X_{III}_1 represents a hydrogen atom, a halogen atom, a C1-C4 alkyl group, or a C1-C4 alkoxy group, m represents 1 or 2, when m is 2, X_{III} s may be different, and x_{II}_1 and x_{II}_2 are the same or different, and represent a hydrogen atom or a C1-C4alkyl group);

19. (Original) A I type collagen gene transcription suppressing composition, which comprises a 2(1H)-quinolinone compound represented by the formula (XIX):

$$(Y_f)_q \xrightarrow{Q_A} (XIX)$$

$$(XIX)$$

$$(Y_f)_q \xrightarrow{A} (M_a')_r$$

[wherein

I. A represents a benzene ring or a pyridine ring; II. In $(Y_f)_q$, Y_f is a substituent on a carbon atom, and represents a group of the following X group or Y group, q represents 0, 1, 2, 3, 4 or 5, when q is 2 or more, Y_f 's are the same or different and, when q is 2 or more, the adjacent two same or different Y_f 's constitute a group of a Z group, and may be fused with an A ring; (1) a X group:

a M_a -group [M_a represents a R_b -group (R_b represents a C1-C10 alkyl group optionally substituted with a halogen atom), a halogen atom, a nitro group, a cyano group, a hydroxyl group, a $R_c-B_a-R_d$ -group (R_c represents a C1-C10 alkyl group optionally substituted with a halogen atom, Ba represents an oxy group, a thio group, a sulfinyl group or a sulfonyl group, and R_d represents a single bond or a C1-C10 alkylene group), a HOR_d -group (R_d is as defined above), a R_e -CO- R_d group (R_e represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom, and R_d is as defined above), a R_e -CO-O- R_d -group (R_e and R_d are as defined above), a $R_eO-CO-R_d$ -group (R_e and R_d are as defined above), a HO-CO-CH=CH-group, a $R_eR_e'N-R_d$ -group (R_e and R_e' are the same or different, Re is as defined above, Re' has the same meaning as that of R_e , and R_d is as defined above), a R_e -CO-NR_e'-R_d-group (R_e , R_e ' and R_d are as defined above), a $R_bO-CO-N(R_e)-R_d$ -group (R_b , R_e and R_d are as defined above), a R_eR_e'N-CO-R_d-group (R_e, R_e' and R_d are as defined above), a $R_eR_e'N-CO-NR_e''-R_d$ -group (R_e , R_e' and R_e'' are the same or different, Re and Re' are as defined above, Re" has the same meaning as that of R_e , and R_d is as defined above), a $R_eR_e'N C(=NR_e")-NR_e"'-R_d$ -group (R_e, R_e', R_e" and R_e" are the same or different, R_e , $R_e{'}$ and $R_e{''}$ are as defined above, $R_e{''}{'}$ has the same meaning as that of R_e , and R_d is as defined above), a $R_b-SO_2-NR_e-R_d$ -group (R_b , R_e and R_d are as defined above), a $R_eR_e'N-SO_2-R_d$ -group (R_e , R_e' and R_d are as defined above), a C2-C10 alkenyl group or a C2-C10 alkynyl group];

(2) a Y group:

a M_b-R_d -group [M_b represents a M_c -group { M_c represents a M_d - R_d '-group { M_d represents a phenyl group optionally substituted with a M_a -group (M_a is as defined above), or a pyridyl group optionally substituted with a M_a -group (M_a is

as defined above), or a naphthyl group optionally substituted with a M_a -group (M_a is as defined above), or

(b)
$$G_3 N - G_5$$

a (b)-group {in (b), G_1 , G_2 , G_4 and G_5 represent a methylene group which is connected to an adjacent atom with a single bond, and may be substituted with a methyl group, or a methine group which is connected to an adjacent atom with a double bond, and may be substituted with a methyl group, and G₃ represents a single bond, or a double bond, or a C1-C10 alkylene group optionally substituted with a methyl group, an oxy group, a thio group, a sulfinyl group, a sulfonyl group or a $-NR_1$ -group $\{R_1 \text{ represents a hydrogen }\}$ atom, or a C1-C10 alkyl group, or a C2-C10 alkyl group substituted with a halogen atom or a R₂-B₁-group (R₂ represents a C1-C10 alkyl group, a C3-C10 alkenyl group or a C3-C10 alkynyl group, and B_1 represents an oxy group, a thio group, a sulfinyl group or a sulfonyl group), or a C3-C10 alkenyl group, or a C3-C10 alkynyl group}, or a C2-C10 alkenylene group optionally substituted with a methyl group, an oxy group, a thio group, a sulfinyl group, a sulfonyl group or a $-NR_1$ -group (R_1 is as defined above)},

(c)
$$\int_{3}^{J_2=J_1} N$$
—

a (c)-group (in (c), J_1 , J_2 and J_3 are the same or different, and represent a methine group optionally substituted with a methyl group, or a nitrogen atom),

(d)
$$N \rightarrow B_b$$

a (d)-group (l is 2, 3 or 4, and $B_{\mbox{\scriptsize b}}$ represents an oxy group or a thio group)

or

(e)
$$B_b \longrightarrow B_b$$

a -N=C(Y_a)- Y_a '-group (Y_a represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom, or a C1-C10 alkoxy group, and Y_a ' represents an oxy group, or a thio group, or an imino group optionally substituted with a C1-C10 alkyl group), a $-Y_b-Y_b$ '- Y_b "-group (Y_b and Y_b ' are the same or different, and represent a methylene group, or an oxy group, or a thio group, or a sulfinyl group, or an imino group optionally substituted

with a C1-C10 alkyl group, and $Y_b{'}$ represents a C1-C4 alkylene group optionally substituted with a halogen atom, or a C1-C4 alkylene group optionally having an oxo group) or a $-Y_c-O-Y_c{'}-O$ -group (Y_c and $Y_c{'}$ are the same or different, and represent a C1-C10 alkylene group);

III. Q_A represents a hydroxy group, a (b)-group ((b) is as defined above), an $A_9-B_6-B_c$ -group [A_9 represents a substituent of the following A₇ group or A₈ group, B₆ represents a carbonyl group or a thiocarbonyl group, and Bc represents an oxy group or a $-N((0)_mR_1)$ -group (m represents 0 or 1, and R_1 is as defined above), provided that when A_9 is a hydrogen atom, then B_c is not a sulfonyl group], an $A_7''-SO_2-B_c$ -group (A_7'' represents a substituent of the following A_7 " group, and B_c is as defined above), an A_8 -SO₂- $B_c\text{-group}$ (A8 represents a substituent of the following A8 group, and B_c is as defined above, provided that A_8 is not a hydrogen atom), a $R_1R_1'N-SO_2-B_c$ -group (R_1 is as defined above, R_1' is the same as or different from R_1 , and has the same meaning as that of R_1 , and B_c is as defined above), a (b) $-SO_2-B_c$ -group ((b) and B_c are as defined above), an A_9' -B_c-group (A₉' represents a substituent of the following A₇' group or A_8 ' group, and B_c is as defined above), a $D_5-R_4-B_c$ group (D₅ represents a substituent of the following D₅ group, R_4 represents a C1-C10 alkylene group, and B_c is as defined above), a $M_c-B_3-B_c$ -group (B_3 represents a carbonyl group, a thiocarbonyl group or a sulfonyl group, and M_c and B_c are as defined above) or a M_c - B_c -group (M_c and B_c are as defined above);

(1) an A_7 group:

a C2-C10 alkenyl group optionally substituted with a halogen atom, a C2-C10 alkynyl group, a C3-C10 haloalkynyl group, a R_2 - B_1 - R_4 -group (R_2 and B_1 are as defined above, and

 R_4 is as defined above), a D_4-R_4 -group (D_4 represents a substituent of the following D_4 group, and R_4 is as defined above), a D_5-R_4 -group (D_5 represents a substituent of the following D_5 group, and R_4 is as defined above), a D_1 - R_4 group $\{D_1 \text{ represents a substituent of the following } D_1$ group, and R_4 is as defined above}, a (b)- R_4 -group ((b) is as defined above, and R_4 is as defined above), a (c)- R_4 group ((c) is as defined above, and R_4 is as defined above), a D_2 - R_4 -group { D_2 represents a substituent of the following D_2 group, and R_4 is as defined above}, a D_3-R_4 -group { D_3 represents a substituent of the following D3 group, and R4 is as defined above}, an A_4 -SO₂- R_4 -group { A_4 represents a (b)-group ((b) is as defined above), a (c)-group ((c) is as defined above) or a $R_1R_1'N$ -group (R_1 and R_1' are as defined above), and R_4 is as defined above) or an A_2 -CO- R_4 -group (A_2 represents a substituent of the following A_2 group, and R_4 is as defined above);

- (2) an A_8 group: a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom;
- (3) an A_7' group: a C3-C10 alkenyl group optionally substituted with a halogen atom, a C3-C10 alkynyl group optionally substituted with a halogen atom, a R_2 - B_1 - R_4' -group (R_2 and B_1 are as defined above, and R_4' represents a C2-C10 alkylene group), a D_4 - R_4' -group (D_4 and D_4' are as defined above), a D_1 - D_4' -group (D_1 and D_4' are as defined above), a (D_1 - D_4' -group ((D_1) and D_4 are as defined above), a (D_2 - D_4' -group ((D_3) and D_4 are as defined above), a D_3 - D_4 are as defined above), a D_4 - D_4 are as defined above) or an D_4 - D_4 -group (D_4) and D_4 -group (D_4) and D_4 -group (D_4) and D_4 -group (D_4) are as defined above) or an D_4 - D_4 -group (D_4) and D_4 -group (D_4 -group (D_4) and D_4 -group (D_4 -
- (4) an A_8 ' group: a C1-C10 alkyl group or a C2-C10 haloalkyl group;

- (5) an A_7'' group: a C2-C10 alkenyl group, a C3-C10 alkenyl group substituted with a halogen atom, a C3-C10 alkynyl group optionally substituted with a halogen atom, a R_2 - B_1 - R_4' -group (R_2 , B_1 and R_4' are as defined above), a D_4 - R_4' -group (D_4 and D_4 are as defined above), a D_5 - D_4 -group (D_5 and D_4 are as defined above), a D_1 - D_4 are as defined above), a (D_4 -group (D_4 and D_4 are as defined above), a (D_4 -group (D_4 and D_4 are as defined above), a (D_4 -group (D_4 and D_4 are as defined above), a (D_4 -group (D_4 and D_4 are as defined above), a (D_4 -group (D_4 and D_4 are as defined above), a (D_4 -group (D_4 and D_4 -group ($D_$
- (i) a D₄ group: a hydroxy group or an A₁-O-group [A₁ represents a R₃-(CHR₀)_m-(B₂-B₃)_m'-group {R₃ represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom or a R₂-B₁-group (R₂ and B₁ are as defined above), or a C2-C10 alkenyl group, or a C2-C10 alkynyl group, R₀ represents a hydrogen atom, a C1-C10 alkyl group or a C2-C10 haloalkyl group, m is as defined above, B₂ represents a single bond, an oxy group, a thio group or a -N((O)_nR₁')-group (R₁' is as defined above, and n represents 0 or 1), B₃ is as defined above, m' represents 0 or 1 and, when B₃ is a sulfonyl group, then m is 0, and R₃ is not a hydrogen atom}];
- (ii) a D₅ group: an O=C(R₃)-group (R₃ is as defined above), an A_1 -(O)_n-N=C(R₃)-group (A₁, n and R₃ are as defined above), a R₁-B₀-CO-R₄-(O)_n-N=C(R₃)-group [R₁, R₄, n and R₃ are as defined above, and B₀ represents an oxy group, a thio group or a -N((O)_mR₁')-group (R₁' and m are as defined above)], a D₂-R₄-(O)_n-N=C(R₃)-group (D₂, R₄, n and R₃ are as defined above) or a R₁A₁N-N=C(R₃)-group (R₁, A₁ and R₃ are as defined above);

- (iii) a D_1 group: a $(R_1-(0)_k-)A_1N-(0)_k'$ -group $(R_1$ and A_1 are as defined above, and k and k' are the same or different, and represent 0 or 1);
- (iv) a D_2 group: a cyano group, a $R_1R_1'NC(=N-(O)_n-A_1)$ -group $(R_1, R_1', n \text{ and } A_1 \text{ are as defined above})$, an $A_1N=C(-OR_2)$ -group $(A_1 \text{ and } R_2 \text{ are as defined above})$ or a NH_2-CS -group; (v) a D_3 group: a nitro group or a R_1OSO_2 -group $(R_1 \text{ is as defined above})$;
- (vi) an A₂ group:
- 1) an A_3-B_4 -group

[A₃ represents a hydrogen atom, or a C1-C10 alkyl group, or a C2-C10 haloalkyl group, or a C2-C10 alkenyl group optionally substituted with a halogen atom, or a C3-C10 alkynyl group optionally substituted with a halogen atom, or a $R_a-(R_4)_m$ -group (R_a represents a phenyl group, a pyridyl group, a furyl group or a thienyl group, optionally substituted with a halogen atom, a C1-C10 alkyl group, a C1-C10 alkoxy group or a nitro group, and R_4 and m are as defined above), or a C1-C10 alkyl group substituted with a (b)- R_4 -group ((b) and R_4 are as defined above), a (c)- R_4 group ((c) and R_4 are as defined above), a $R_2-B_1-R_4$ -group $(R_2, B_1 \text{ and } R_4 \text{ are as defined above}), a D_4-R_4-group (D_4 \text{ and } R_4)$ are as defined above), a D_5 -group (D_5 is as defined above), a D_1-R_4 -group (D_1 and R_4 are as defined above), a D_2 -group $(D_2 \text{ is as defined above})$, a D_3-R_4 -group $(D_3 \text{ and } R_4 \text{ are as})$ defined above) or an A_4 -SO₂- R_4 -group { A_4 is as defined above, and R₄ is as defined above),

 B_4 represents an oxy group, a thio group or a - $N((0)_mR_1)$ -group $(R_1$ and m are as defined above), provided that when B_4 is a thio group, then A_3 is not a hydrogen atom];

- 2) a R_1 - B_4 -CO- R_4 - B_4 '-group (R_1 , B_4 and R_4 are as defined above, B_4 ' is the same as or different from B_4 , and has the same meaning as that of B_4 , provided that when B_4 is a thio group, then R_2 is not a hydrogen atom) or a D_2 - R_4 - B_4 -group (D_2 , R_4 and B_4 are as defined above);
- 3) a R_2 -SO₂-NR₁-group (R_2 is as defined above, provided that a hydrogen atom is excluded, and R_1 is as defined above);
- 4) a (b)-group ((b) is as defined above);
- 5) a (c)-group ((c) is as defined above) or
- 6) a $R_1A_1N-NR_1'$ -group (R_1 , A_1 and R_1' are as defined above); IV. T_A represents a hydrogen atom, an A_9' -group (A_9' is as

defined above), a D_5-R_4 -group (D_5 and R_4 are as defined above) or a M_c -group (M_c is as defined above);

V. $M_a{}^\prime$ is the same as or different from $M_a{}^\prime$, and has the same meaning as that of $M_a{}^\prime$, and r represents 0, 1, 2, 3 or 4; and

the "as defined above" in the same symbol between a plurality of substituents indicates that the plurality of substituents independently represent the same meaning as that described above and, between the plurality of substituents, a selection range of selected substituents is the same, while the selected substituents may be the same or different as far as they are selected in the range]; and an inert carrier;

20. (Original) A 2(1H)-pyridinone compound represented by the formula (XX):

$$(X_h)_p \xrightarrow{A} (XX)$$

[wherein

I. A represents a benzene ring or a pyridine ring; II. In $(X_h)_p$, X_h represents a hydroxy group, a halogen atom, a C1-C10 alkyl group, a C1-C10 alkoxycarbonyl group, a (R')2N-group (R' represents a C1-C10 alkyl group), a nitro group or a C1-C10 alkoxy group, p represents 0, 1, 2, 3 or 4 and, when p is 2 or more, X_h 's are the same or different, provided that when p is 2 or more, and in case that X_h is selected from a hydroxy group, a halogen atom, a C1-C10 alkyl group and a C1-C10 alkoxy group, then X_h 's do not represent the same group or atom at the same time; III. In $(Y_h)_{\alpha}$, Y_h is a substituent on a carbon atom, and represents a substituent of the following X_7 group or Y_7 group, q represents 0, 1, 2, 3, 4 or 5, when q is 2 or more, Yh's are the same or different and, when q is 2 or more, the adjacent two same or different Yh's constitute a group of a Z₇ group, and may be fused with an A ring; (1) a X_7 group:

a Ma-group [Ma represents a R_b -group (R_b represents a C1-C10 alkyl group optionally substituted with a halogen atom), a halogen atom, a nitro group, a cyano group, a hydroxy group, a R_c - B_a - R_d -group (R_c represents a C1-C10 alkyl group optionally substituted with a halogen atom, B_a represents an oxy group, a thio group, a sulfinyl group or a sulfonyl group, and R_d represents a single bond or a C1-C10 alkylene group), a HOR $_d$ -group (R_d is as defined above), a R_e -C0- R_d -group (R_e represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom, and R_d is as defined above), a R_e -C0-O- R_d -group (R_e and R_d are as defined above), a R_e O-C0- R_d -group (R_e and R_d are as defined above), a R_e O-C0-CH=CH-group, a R_e R $_e$ 'N- R_d -group (R_e and R_e ' are the same or different, R_e is as defined above, R_e ' has

the same meaning as that of R_e , and R_d is as defined above), a R_e -CO-NR $_e$ '-R $_d$ -group (R_e , R_e ' and R_d are as defined above), a R_b O-CO-N(R_e)-R $_d$ -group (R_b , R_e and R_d are as defined above), a R_e R $_e$ 'N-CO-R $_d$ -group (R_e , R_e ' and R_d are as defined above), a R_e R $_e$ 'N-CO-NR $_e$ "-R $_d$ -group (R_e , R_e ' and R_e " are the same or different, R_e and R_e ' are as defined above, R_e " has the same meaning as that of R_e , and R_d is as defined above), a R_e R $_e$ "N-C(=NR $_e$ ")-NR $_e$ "'-R $_d$ -group (R_e , R_e ', R_e " and R_e "' are the same or different, R_e , R_e ' and R_e " are as defined above, R_e "' has the same meaning as that of R_e , and R_d is as defined above), a R_b -SO $_2$ -NR $_e$ -R $_d$ -group (R_b , R_e and R_d are as defined above), a R_e R $_e$ 'N-SO $_2$ -R $_d$ -group (R_e , R_e ' and R_d are as defined above), a C2-C10 alkenyl group or a C2-C10 alkynyl group], provided that when A represents a benzene ring, then a X_h -group (X_h is as defined above) is excluded;

(2) a Y_7 group:

a M_b - R_d -group [M_b represents a M_c -group { M_c represents a M_d - R_d '-group { M_d represents a phenyl group optionally substituted with a M_a -group (M_a is as defined above), or a pyridyl group optionally substituted with a M_a -group (M_a is as defined above), or a naphthyl group optionally substituted with a M_a -group (M_a is as defined above), or

(b)
$$G_3 N - G_5$$

a (b)-group {in (b), G_1 , G_2 , G_4 and G_5 represent a methylene group which is connected to an adjacent atom with a single bond, and may be substituted with a methyl group, or a methine group which is connected to an adjacent atom with a double bond, and may be substituted with a methyl group, and G_3 represents a single bond, or a double bond, or a C1-C10 alkylene group optionally substituted with a methyl

group, an oxy group, a thio group, a sulfinyl group, a sulfonyl group or a $-NR_1$ -group $\{R_1 \text{ represents a hydrogen}\}$ atom, or a C1-C10 alkyl group, or a C2-C10 alkyl group substituted with a halogen atom or a R_2 - R_1 -group $\{R_2 \text{ represents a C1-C10 alkyl group, a C3-C10 alkenyl group or a C3-C10 alkynyl group, and <math>R_1$ represents an oxy group, a thio group, a sulfinyl group or a sulfonyl group), or a C3-C10 alkenyl group, or a C3-C10 alkenyl group, or a C3-C10 alkenyl group optionally substituted with a methyl group, an oxy group, a thio group, a sulfinyl group, a sulfonyl group, a sulfonyl group or a $-NR_1$ -group $\{R_1 \text{ is as defined above}\}$,

(c)
$$\int_{3}^{J_2=J_1} N$$
—

a (c)-group (in (c), J_1 , J_2 and J_3 are the same or different, and represent a methine group optionally substituted with a methyl group, or a nitrogen atom),

(d)
$$N \longrightarrow B_b$$

or

a (d)-group (1 is 2, 3 or 4, and $B_{\mbox{\scriptsize b}}$ represents an oxy group or a thio group)

(e)
$$B_b$$
 (CH₂)

an (e)-group (1 and B_b are as defined above), R_d ' is the same as or different from R_d , and has the same meaning as that of R_d }, a M_c - B_a -group (M_c and B_a are as defined above), a M_c -CO-group (M_c is as defined above), a M_c -CO-O-group (M_c is as defined above), a M_c -CO-Group (M_c is as defined above), a M_c - M_c

CO-NR_e-group (M_c and R_e are as defined above), a $M_cO-CO-NR_e-$ group (M_c and R_e are as defined above), a M_cR_eN-CO- group (M_c and R_e are as defined above), a $M_cR_eN-CO-NR_e'$ -group (M_c , R_e and R_e' are as defined above), a M_cR_eN-C (= NR_e')- NR_e'' -group (M_c , R_e , R_e' and R_e'' are as defined above), a $M_c-SO_2-NR_e-$ group (M_c and R_e are as defined above) or a $M_cR_eN-SO_2-$ group (M_c and R_e are as defined above), and R_d is as defined above]; (3) a Z_7 group:

a $-N=C(Y_a)-Y_a'$ -group (Y_a represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom, or a C1-C10 alkoxy group, and Y_a' represents an oxy group, or a thio group, or an imino group optionally substituted with a C1-C10 alkyl group), a $-Y_b-Y_b'-Y_b''$ -group (Y_b and Y_b'' are the same or different, and represent a methylene group, or an oxy group, or a thio group, or a sulfinyl group, or an imino group optionally substituted with a C1-C10 alkyl group, and Y_b' represents a C1-C4 alkylene group optionally substituted with a halogen atom or a C1-C4 alkylene group optionally having an oxo group) or a $-Y_c-O-Y_c'-O$ -group (Y_c and Y_c' are the same or different, or a C1-C10 alkylene group), provided that when p is 0, then Y_b does not fused with an A ring to form a benzo[1,3]dioxol ring;

IV. Q_A represents a hydroxy group, a (b)-group ((b) is as defined above), an A_9 - B_6 - B_c -group [A_9 represents a substituent of the following A_7 group or A_8 group, B_6 represents a carbonyl group or a thiocarbonyl group, and B_c represents an oxy group or a -N((O)_mR₁-group (m represents 0 or 1, and R_1 is as defined above), provided that when A_9 is a hydrogen atom, then B_c is not a sulfonyl group], an A_7 "-SO₂- B_c -group (A_7 " represents a substituent of the following A_7 " group, and B_c is as defined above), an A_8 -SO₂- B_c -group

(A_8 represents a substituent of the following A_8 group, and B_c is as defined above, provided that A_8 is not a hydrogen atom), a $R_1R_1'N-SO_2-Bc$ -group (R_1 is as defined above, R_1' is the same as or different from R_1 , and has the same meaning as that of R_1 , and B_c is as defined above), a (b)- SO_2-B_c -group ((b) and B_c are as defined above), an A_9' - B_c -group (A_9' represents a substituent of the following A_7' group or A_8' group, and B_c is as defined above), a $D_5-R_4-B_c$ -group (D_5 represents a substituent of the following D_5 group, R_4 represents a C1-C10 alkylene group, and B_c is as defined above), a $M_c-B_3-B_c$ -group (B_3 represents a carbonyl group, a thiocarbonyl group or a sulfonyl group, and M_c and B_c are as defined above);

(1) an A_7 group:

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a C2-C10 alkenyl group optionally substituted with a halogen atom, a C2-C10 alkynyl group, a C3-C10 haloalkynyl group, a R_2 - B_1 - R_4 -group (R_2 and B_1 are as defined above, and R_4 is as defined above), a D_4 - R_4 -group (D_4 represents a substituent of the following D_4 group, and R_4 is as defined above), a D_5-R_4 -group (D_5 represents a substituent of the following D_5 group, and R_4 is as defined above), a $D_1 - R_4$ group {D1 represents a substituent of the following D1 $\,$ group, and R_4 is as defined above}, a (b)- R_4 -group ((b) is as defined above, and R_4 is as defined above), a (c)- R_4 group ((c) is as defined above, and R_4 is as defined above), a D_2-R_4 -group { D_2 represents a substituent of the following D_2 group, and R_4 is as defined above), a D_3 - R_4 -group { D_3 represents a substituent of the following D_3 group, and R_4 is as defined above}, an $A_4-SO_2-R_4$ -group { A_4 represents a (b)-group ((b) is as defined above), a (c)-group ((c) is as defined above) or a $R_1R_1{'}\!-\!N\!-\!group$ (R_1 and $R_1{'}$ are as defined

above), and R_4 is as defined above) or an A_2 - CO_2 - R_4 -group (A_2 represents a substituent of the following A_2 group, and R_4 is as defined above);

•, •

- (2) an A_8 group: a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom;
- (3) an A_7' group: a C3-C10 alkenyl group optionally substituted with a halogen atom, a C3-C10 alkynyl group optionally substituted with a halogen atom, a R_2 - B_1 - R_4' -group (R_2 and B_1 are as defined above, and R_4' represents a C2-C10 alkylene group), a D_4 - R_4' -group (D_4 and R_4' are as defined above), a D_1 - D_4' -group (D_1 and D_4' are as defined above), a (b)- D_4' -group ((b) and D_4' are as defined above), a (c)- D_4' -group ((c) and D_4' are as defined above), a D_4 - D_4' -group (D_4 are as defined above), a D_4 - D_4' -group (D_4 and D_4 are as defined above) or an D_4 - D_4' -group (D_4 and D_4 are as defined above);
- (4) an A_8 ' group: a C1-C10 alkyl group or a C2-C10 haloalkyl group;
- (5) an A_7'' group: a C2-C10 alkenyl group, a C3-C10 alkenyl group substituted with a halogen atom, a C3-C10 alkynyl group optionally substituted with a halogen atom, a R_2 - B_1 - R_4' -group (R_2 , B_1 and R_4' are as defined above), a D_4 - R_4' -group (D_4 and D_4 are as defined above), a D_5 - D_4 -group (D_5 and D_4 are as defined above), a D_1 - D_4 -group (D_1 and D_4 are as defined above), a (D_1 - D_4 -group ((D_1) and D_4 -are as defined above), a (D_1 - D_4 -group ((D_1) and D_4 -are as defined above), a (D_2 - D_4 -group (D_4) and D_4 -group (D_4) are as defined above), a D_2 - D_4 -group (D_4) and D_4 -group (D_4) and D_4 -group (D_4) are as defined above), a D_4 - D_4 -group (D_4) and D_4 -group (D_4) and D_4 -group (D_4) and D_4 -group (D_4) are as defined above);
- (i) a D_4 group: a hydroxy group or an A_1 -O-group $[A_1$ represents a R_3 - $(CHR_0)_m$ - $(B_2$ - $B_3)_m$ '-group $\{R_3$ represents a hydrogen atom, or a C1-C10 alkyl group optionally

substituted with a halogen atom or a R_2 - B_1 -group (R_2 and B_1 are as defined above), or a C2-C10 alkenyl group, or a C2-C10 alkynyl group, R_0 represents a hydrogen atom, a C1-C10 alkyl group or a C2-C10 haloalkyl group, m is as defined above, B_2 represents a single bond, an oxy group, a thio group or a $-N((O)_nR_1')$ -group (R_1' is as defined above, and n represents 0 or 1), B_3 is as defined above, m' represents 0 or 1 and, when B_3 is a sulfonyl group, then m is 0, and R_3 is not a hydrogen atom}];

- (ii) a D₅ group: an O=C(R₃)-group (R₃ is as defined above), an A_1 -(O)_n-N=C(R₃)-group (A₁, N and R₃ are as defined above), a R_1 -B₀-CO-R₄-(O)_n-N=C(R₃)-group [R₁, R₄, n and R₃ are as defined above, and B₀ represents an oxy group, a thio group or a -N((O)_mR₁')-group (R₁' and m are as defined above)], a D₂-R₄-(O)_n-N=C(R₃)-group (D₂, R₄, n and R₃ are as defined above) or a R₁A₁N-N=C(R₃)-group (R₁, A₁ and R₃ are as defined above);
- (iii) a D_1 group: a $(R_1-O)_k-)A_1N-(O)_k'$ -group $(R_1$ and A_1 are as defined above, and k and k' are the same or different, and represent 0 or 1);
- (iv) a D_2 group: a cyano group, a $R_1R_1'NC(=N-(O)_n-A_1$ -group $(R_1, R_1', N \text{ and } A_1 \text{ are as defined above})$, an $A_1N=C(-OR_2)$ -group $(A_1 \text{ and } R_2 \text{ are as defined above})$ or a NH_2-CS -group; (v) a D_3 group: a nitro group or a R_1OSO_2 -group $(R_1 \text{ is as defined above})$;
- (vi) an A₂ group:

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1) an A_3-B_4 -group

[A₃ represents a hydrogen atom, or a C1-C10 alkyl group, or a C2-C10 haloalkyl group, or a C2-C10 alkynyl group optionally substituted with a halogen atom, or a C3-C10 alkynyl group optionally substituted with a halogen atom, or a R_a-(R₄)_m-group (R_a represents a phenyl group, a pyridyl

group, a furyl group or a thienyl group, optionally substituted with a halogen atom, a C1-C10 alkyl group, a C1-C10 alkoxy group or a nitro group, and R_4 and m are as defined above), or a C1-C10 alkyl group substituted with a (b)- R_4 -group ((b) and R_4 are as defined above), a (c)- R_4 -group ((c) and R_4 are as defined above), a R_2 - R_1 - R_4 -group (R_2 , R_1 and R_4 are as defined above), a R_4 -group (R_4 are as defined above), a R_4 -group (R_4 are as defined above), a R_4 -group (R_4 are as defined above), a R_4 -group (R_4 are as defined above), a R_4 -group (R_4 are as defined above), a R_4 -group (R_4 are as defined above), a R_4 -group (R_4 are as defined above), and R_4 are as defined above), and R_4 is as defined above, and R_4 is as defined above),

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 B_4 represents an oxy group, a thio group or a - $N((O)_mR_1)$ -group $(R_1$ and m are as defined above), provide that when A_4 is a thio group, then A_3 is not a hydrogen atom);

- 2) a $R_1-B_4-CO-R_4-B_4'$ -group (R_1 , B_4 and R_4 are as defined above, B_4' is the same as or different from B_4 , and has the same meaning as B_4 , provided that when B_4 is a thio group, then R_2 is not a hydrogen atom) or a $D_2-R_4-B_4$ -group (D_2 , R_4 and B_4 are as defined above);
- 3) a R_2 -SO₂-NR₁-group (R_2 is as defined above, provided that a hydrogen atom is excluded, and R_1 is as defined above);
- 4) a (b)-group ((b) is as defined above);
- 5) a (c)-group ((c) is as defined above) or
- 6) a $R_1A_1N-NR_1'$ -group (R_1 , A_1 and R_1' are as defined above);
- V. T_A represents a hydrogen atom, an A_9 '-group (A_9 ' is as defined above), a D_5 - R_4 -group (D_5 and R_4 are as defined above) or a M_c -group (M_c is as defined above);
- VI. $M_a{}'$ is the same as or different from $M_a{}$, and has the same meaning as that of $M_a{}$, and r represents 0, 1, 2, 3 or 4, provided that when an A ring is a benzene ring, then q

is not 0 and, when an A ring is a benzene ring or a pyridine ring, then p and q are not 0 at the same time, in either case; and

the "as defined above" in the same symbol between a plurality of substituents indicates that the plurality of substituents independently represent the same meaning as that described above and, between the plurality of substituents, a selection range of selected substituents is the same, while the selected substituents may be the same or different as far as they are selected in the range];

21. (Original) A I type collagen gene transcription suppressing composition, which comprises a 2(1H)-quinolinone compound represented by the formula (XXI):

$$(X_{IV})_{k} = (XXI)$$

[wherein X_{IV} represents a hydrogen atom, or a hydroxy group, or a halogen atom, or a C1-C4 alkyl group optionally substituted with a halogen atom or a C1-C4 alkoxy group, or a C2-C4 alkenyl group, or a C2-C4 alkynyl group, or a C1-C4 alkoxy group, or a R_I -S(O)₁-group (R_I represents a C1-C4 alkyl group, and 1 represents an integer of 0 to 2), or a nitro group, or a cyano group, or a carboxy group, or a C1-C4 alkoxycarbonyl group, or a (R_I)₂N-group (R_I is as defined above), or a R_I -C0-NH-group (R_I is as defined above), or a R_I -O-C0-NH-group (R_I is as defined above), or a R_I -NH-C0-NH-group (R_I is as defined above), or a R_I -C0-O-NH-group (R_I is as defined above), or a R_I -C0-O-NH-group (R_I is as defined above), or a R_I -C0-O-NH-group (R_I is as defined above), or a R_I -C0-O-G-group (R_I)

represents a hydrogen atom or a C1-C4 alkyl group), or a RB-group (B represents an oxygen atom or a sulfur atom, and R represents a C1-C4 alkyl group substituted with a halogen atom), k represents an integer of 1 to 4 and, when k is an integer of 2 to 4, $X_{\rm IV}$'s may be different, and $r_{\rm II}$ are the same or different, and represent a hydrogen atom or a C1-C4 alkyl group]; and an inert carrier;

22. (Original) A 2(1H)-quinolinone compound represented by the formula (XXII):

[wherein X_{IV}' represents a C2-C4 alkyl group, or a C1-C4 alkyl group substituted with a halogen atom or a C1-C4 alkoxy group, or a C2-C4 alkenyl group, or a C2-C4 alkynyl group, or a C2-C4 alkoxy group, or a R_I -S(O)₁-group (R_I represents a C1-C4 alkyl group, and 1 represents an integer of 0 to 2), or a cyano group, or a carboxy group, or a C2-C4 alkoxycarbonyl group, or a (R_{II})₂N-group (R_{II} represents a C2-C4 alkyl group), or a R_I -CO-NH-group (R_I is as defined above), or a R_I O-CO-NH-group (R_I is as defined above), or a R_I NH-CO-NH-group (R_I is as defined above), or a (R_I')₂N-CO-group (R_I' represents a hydrogen atom or a C1-C4 alkyl group), or a RB-group (B represents an oxygen atom or a sulfur atom, and R represents a C1-C4 alkyl group substituted with a halogen atom), X_{IV}'' represents a hydrogen atom, a halogen atom, a C1-C4 alkyl group or a C1-C4 alkoxy

group, m represents 1 or 2 and, when m is 2, X_{IV} "'s may be different, and r_{II} and r_{II} are the same or different, and represent a hydrogen atom or a C1-C4alkyl group];

23-24. (Cancelled)

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- 25. (Currently amended) A composition for improving tissue fibrosis, which comprises a compound according to claims 5, 6, 8, 9, 11, 12, 13, 14, 16, 18, 20 or 22 claim 5, and an inert carrier;
- 26. (Currently amended) A method for improving tissue fibrosis, which comprises administering an effective amount of a compound according to claims 5, 6, 8, 9, 11, 12, 13, 14, 16, 18, 20 or 22 claim 5 to a mammal in need thereof;

27. (Cancelled)

28. (Currently amended) A composition for suppressing the activity of TGF- β , which comprises a compound according to claims 5, 6, 8, 9, 11, 12, 13, 14, 16, 18, 20 or 22 claim 5, and an inert carrier;

29. (Cancelled)

- 30. (Currently amended) A composition for hair growth which comprises a compound according to claims 5, 6, 8, 9, 11, 12, 13, 14, 16, 18, 20 or 22 claim 5, and an inert carrier;
- 31. (Currently amended) A method for growing hair, which comprises administering an effective amount of a

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compound according to claims 5, 6, 8, 9, 11, 12, 13, 14, 16, 18, 20 or 22 claim 5 to a mammal in need thereof;

32-33. (Cancelled)

- 34. (Currently amended) A composition for improving tissue fibrosis, which comprises a compound according to claims 1, 2, 3, 4, 7, 10, 15, 17, 19 or 21 claim 1, and an inert carrier;
- 35. (Currently amended) A method for improving tissue fibrosis, which comprises administering an effective amount of a compound according to claims 1, 2, 3, 4, 7, 10, 15, 17, 19 or 21 claim 1 to a mammal in need thereof;

36. (Cancelled)

37. (Currently amended) A composition for suppressing the activity of TGF- β , which comprises a compound according to claims 1, 2, 3, 4, 7, 10, 15, 17, 19 or 21 claim 1, and an inert carrier;

38. (Cancelled)

- 39. (Currently amended) A composition for hair growth which comprises a compound according to claims 1, 2, 3, 4, 7, 10, 15, 17, 19 or 21 claim 1, and an inert carrier;
- **40.** (Currently amended) A method for growing hair, which comprises administering an effective amount of a compound according to elaims 1, 2, 3, 4, 7, 10, 15, 17, 19 or 21 claim 1 to a mammal in need thereof;

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41. (Original) A 2(1H)-pyridinone compound represented by the formula (XXIII):

42. (Original) A 2(1H)-pyridinone compound represented by the formula (XXIV):